

Child Development Abstracts & Bibliography

Contents

ABSTRACTS OF ARTICLES	161
MORPHOLOGY	161
PHYSIOLOGY AND BIOCHEMISTRY	166
CLINICAL MEDICINE AND PATHOLOGY . .	170
PSYCHOLOGY	173
PSYCHIATRY AND MENTAL HYGIENE . . .	190
PUBLIC HEALTH AND HYGIENE	195
HUMAN BIOLOGY AND DEMOGRAPHY . . .	196
EDUCATION	197
SOCIOLOGY	201
BOOK NOTICES	207
BOOKS RECEIVED	220
AUTHOR INDEX	222
SUBJECT INDEX	228

Published by Child Development Publications of the
SOCIETY FOR RESEARCH IN CHILD DEVELOPMENT, INC.

Editor

WILLIAM E. MARTIN
Purdue University

Editorial Board

DOROTHY H. EICHORN
University of California

FRANK FALKNER
University of Louisville

REUBEN HILL
University of Minnesota

EUGENE E. LEVITT
Indiana University Medical Center

JAMES M. TANNER
University of London

GLENN TERRELL, JR.
University of Colorado

Managing Editor

KATE HOFFMAN

Child Development Abstracts and Bibliography, one of three publications of the Society for Research in Child Development, Inc., is issued three times a year, two numbers in each issue. The subscription price per year is \$6.00 domestic, \$6.50 foreign. Single issues are \$2.50.

Child Development is issued quarterly in March, June, September, and December. The subscription price per year is \$12.00 domestic, \$12.50 foreign. Single issues are \$3.50.

Monographs of the Society for Research in Child Development is issued at irregular intervals during the year. The subscription price per year is \$6.00 domestic, \$6.50 foreign. The price of individual monographs is variable.

The three publications of the Society are available at the special price of \$20.00 per year, domestic; \$21.50 per year, foreign.

A limited number of back issues of all publications is available. A mimeographed list may be had upon request.

Subscriptions, address changes, and business communications should be sent to CHILD DEVELOPMENT PUBLICATIONS, Purdue University, Lafayette, Indiana.

Please give four weeks' notice when changing your address, giving old and new addresses. Undelivered copies resulting from address changes will not be replaced; subscribers should notify the post office that they will guarantee forwarding postage. Other claims for undelivered copies must be made within four months of publication.

-

-

-
d
er

d
n.

at
o

e

A

e
,

d
ll
ll
at

-

Abstracts of Articles

MORPHOLOGY

595. BINNING, G. (Publ. Sch. Board, Saskatoon, Sask.) **Earlier physical and mental maturity among Saskatoon public school children.** *Canad. J. publ. Hlth*, 1958, 49, 9-17. Saskatoon school children between the ages of 6 and 15 inclusive were examined in 1936, 1946 and 1956. In 1956 the school children of both sexes were generally taller and heavier than in the earlier groups, but there was little difference in heights and weights between 1946 and 1936. The 1956 children were divided according to three districts of Saskatoon: districts 1 and 2 were similar except that the former had many new houses, district 3 differed ethnically and was rated lower socio-economically than the other two. There was little difference between children from districts 1 and 2, indicating that modern housing had little effect on growth. The children of district 3 were in general shorter and lighter than those of like age in the other districts, but the children of all 3 districts were similar in weight for a given height. Records were available of mental ability and visual acuity, and these showed that the 1956 children, as well as being taller and heavier, had a higher mental age than the earlier groups. A greater proportion of them had suffered the loss of visual acuity associated with the onset of puberty. In children who were in grade VII (about 13 years old) in 1951 there were interesting and significant differences between children of different heights in their susceptibility to diseases of bacterial origin. —A. W. Boyne (*Nutrition Abstr.*, 28:5649).

596. CALONGHI, LUIGI, & BARONCHELLI, GIACOMO. **Annotazioni a proposito di dati biometrici.** (Remarks about some biometrical data.) *Orientamenti Pedag.*, 1961, 8, 22-51. Here one finds a set of tables bearing the ages and average weights, scaled by months, obtained from enquiries upon 6 to 14 year old Piedmontese girls attending elementary or lower secondary schools. The same is to be found with reference to other biometrical measures (chest perimeter, spirometric capacity, stature, lower limbs) taken upon school boys and girls attending a paramount lower secondary school in Turin. In order to be of help to educators in the evaluation of the biometrical data gathered by them, beside the mentioned tables, here is supplied a bibliography of the reference terms available in various localities and suitable graphic means are indicated. Particularly, the adoption of statistical indices (standard deviation) is suggested instead of the age criterion and its use is made clear by means of a graphic representation. By starting from the measurements therein gathered, attention is brought especially upon sex differences, developmental rhythm, and comparisons between groups of a different socioeconomic and geographical level are set up. —English Summary.

597. COPE, I., & MURDOCH, J. D. (Hammersmith Hosp., London) **The estimation of foetal maturity.** *Brit. J. Obstet. Gynecol.*, 1958, 65, 56-57. Centres of ossification were examined by X-rays in 11 pairs of twins. Considerable variations were found within pairs. In seven normal pairs of like sex, the heavier twin appeared to have slightly more advanced ossification. It seems likely that, weight being equal, ossification is more advanced in a female than in her male twin. —A. M. Thomson (*Nutrition Abstr.*, 28:5640).

598. CORDERO, N., JAVIER, B. V., PAULINO-GONZALEZ, C. M., BAGA-BALDO, Z. B., & RODRIGUEZ-BUSUEGO, M. (Univer. Philippines Coll. Med.) **Philippine physiological standards: body weight in relation to height and age for adults.** *Acta med. Philipp.*, 1956-1957, 13, 417-440. Height and weight were measured for 12,000 men and 7000 women, aged from 1 to 60 years, considered

representative of the Filipino population. The results are tabulated and graphs are drawn; it is believed that they can be used as a reliable standard. From the records available, it is concluded that Filipino men have increased 3% in bodyweight for a given height and age, and 2% in height for the last 27 years. They weigh less than Americans of comparable build. —E. M. Hume (Nutrition Abstr., 28:5657).

599. DAMON, ALBERT. (Harvard Sch. Publ. Hlth, Boston, Mass.) **Constitution and smoking.** Science, 1961, **134**, 339-341. Among 167 adult male factory workers of Neapolitan parentage but of American birth or upbringing, the lean men smoked significantly more than the fat ones. Smoking was positively correlated with serum cholesterol but was not associated with morphological masculinity, blood pressure, diet, or consumption of alcohol. —Abstract.

600. ESPENSCHADE, ANNA S. **The contributions of physical activity to growth.** Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, **31**, 351-364. 90 studies were reviewed for this review of the contributions of physical activity to growth. In her summary, the author points out that no student of physical growth can ignore the important function of heredity in determining structure; however, from conception on, heredity and environment interact to shape the individual. The research evidence shows that growth in physique and in physical ability occurs simultaneously, but exercise is a limiting factor in increase of abilities; physique appears to limit physical performance but in turn is influenced to some extent by the amount and type of exercise performed. Desirable changes in bones, connective tissue, fat, and musculature occur as a result of exercise; these changes are not necessarily permanent but are dependent upon continued activity. Exercise, then, stimulates growth of body and makes the individual stronger and more capable of efficient function. —H. H. Clarke.

601. FALKNER, F.,¹ PERNOT-ROY, M. P., HABICH, H., SÈNÉCAL, J., & MASSÉ, G. (Centre Internat. l'Enfance, Paris) **Some international comparisons of physical growth in the two first years of life.** Courier, 1958, **8**, 1-11. Longitudinal growth studies are being made by the same methods in London, Paris, Zürich and Dakar. Boys and girls are examined when they are 13 weeks, 26 weeks, 39 weeks, 1 year, 18 months and 2 years old, and measurements are made of weight, recumbent length, skeletal maturity and eruption of deciduous teeth. Tables are given of the mean values at each centre for each age and sex, and for the increments from each age to the next. Closely similar values were obtained from the three European centres; the Dakar children were more advanced up to about 6 months of age, but thereafter lost their advantage until by 12 to 18 months they had fallen behind the European children. This did not apply to eruption of teeth, for which similar values were obtained from all four centres at each age. In London and Paris (Zürich data not available) the girls showed a much more rapid advance in skeletal maturity than did the boys, but a sex difference was not found in the African children. —I. McDonald (Nutrition Abstr., 28:5644).

602. GUNASEKARA, D. B., & MAHADEVA, K. (Med. Res. Inst., Colombo) **Heights and weights of Ceylonese children.** Ceylon med. J., 1957, **4**, 81-98. Weights and heights were measured in a random sample of over 6000 schoolchildren from a district in Ceylon, and from them were prepared tables and diagrams which illustrated the means and scatter of the measurements at each age. Graphs show how the sex difference was affected by age, with respect to attained weights and heights and rates of growth as measured by differences between, say, 4-year-old and 5-year-old children. Tables show the average weights of children of a given age and height. These tables were used to assess the nutritional status of children and the assessment obtained was compared with that from tables of an earlier worker, Ekanayake, whose children were measured in 1936. The differences between the results of the two sets of tables are discussed. There is also a discussion of the criteria which should be adopted when tables of this sort are used to assess the nutritional status of children. —A. W. Boyne (Nutrition Abstr., 28:5653).

603. HEIMENDINGER, J. (Kinderklin., Univ. Basle) **Die Ergebnisse von Körpermessungen an 5000 Basler Kindern von 0 bis 18 Jahren.** (Results of body measurements on 5000 Basle children from 0 to 18 years old.) Schweiz. med. Wochenschr., 1958, **88**, 785-787; 807-813. . . . Measurements made were of height, weight, circumference of head, right upper arm, wrist, right calf, thorax and abdomen, bitrochanteric and bideltoid distances. Weights were without clothing or in gymnastic costume, corrected to nude weight. The distribution of the 5000 by age and sex is shown and methods of analysis of the measurements are described. . . . Mean measurements with standard deviations by sex and age at 3-month intervals, and distribution by 10th, 50th and 90th percentiles for infants and 10th, 25th, 50th, 75th, and 90th percentiles for all others are presented in tables and comparisons are made at birth and each year of age with Italian, Swedish, United States, Austrian, German and earlier Swiss measurements. . . . —I. Leitch (Nutrition Abstr., 29:979).

604. KEDDIE, J. A. G. (Dept. Hlth, Scotland) **The heights and weights of Scottish children of different socio-economic groups. 1. Cross-sectional studies. 2. Longitudinal studies.** Med. Officer, 1958, **99**, 87-92; 101-106. 1. A cross-sectional study was made of data of session 1952-1953 on heights and weights of boys and girls aged 5, 9, 13 and 16 at three different types of school in or near Edinburgh, representing a gradation in the Registrar-General's socioeconomic grouping. Group 1 are mainly Social Class I, group 2 a mixture of I and II, and group 3 are from all five classes with a minority in Classes I and II. The results are summarized in graphs and tables and the principal findings are: (1) At 5 years and 9 years the group 3 children grew less rapidly than the children from groups 1 and 2, but the position was reversed at 13 and 16 years. (2) At all ages the group 3 children were shorter and lighter than the other children. (3) The height:weight ratio was generally less for group 3 children than for the others. The main conclusion is that although differences of stature between children of different socioeconomic classes have been reduced in recent decades, the differences may still be greater than is generally realized.

2. Longitudinal records of weight and height of boys and girls of the same three school groups in or near Edinburgh were examined; the children were all born between 1934 and 1938. Twice-yearly measurements were available for the children of group 1 between the ages of 13½ and 18½. The data are used to show how children of above average height and weight about 14 years old gained less in height and weight subsequently than those below average height and weight. Appendix tables give the means and standard deviations of height and weight measurements at each age. The boy:girl ratio for height and weight, examined at 6-monthly intervals, increased through unity just below 14 years for height and at 15½ for weight. In group 2 and group 3 schools, the measurements available were at ages 5, 9, 13 and 16 years, approximately. Many of the children had not been measured at each age and so the data were divided into groups according to the ages at which they had been measured. The children of each group were divided according to their stature or weight at the earlier of the two ages when they were measured. The general conclusions were that the children who were above average (taller or heavier) at age 5 grew as much to age 9 as those who were below average, that those above average at age 9 grew as much to age 13 as those below average, but that those who were above average at age 13 did not grow as much to age 16 as those who were below average at 13. The last finding was similar to that for the children of group 1. —A. W. Boyne (Nutrition Abstr., 28:5647).

605. LIN, C. (First Med. Coll., Shanghai) **Anthropometric measurements of Shanghai students and preschool children in 1954. A preliminary study.** Chinese med. J., 1957, **75**, 1018-1023. Height and weight were measured for 22,521 children and adolescents, aged from 3 to 20 years, from preschool institutions and middle and elementary schools in Shanghai. The numbers of boys and girls were about equal; 67% were from workers' families. The mean values for each sex for each year of age are tabulated, with maximum and minimum, standard error of the mean and standard deviation. The height and weight of the sexes did not differ greatly until about the age of 14, when the boys outstripped the girls. The average height and weight of both

sexes at most ages was greater in 1954 than in 1930-1931. In 1944, at most ages, both values were lower than in 1954 or 1930-1931, showing the adverse effect of war. —E. M. Hume (Nutrition Abstr., 28:5652).

606. LOOMBA, S. D. (Civil Dispensary, Hazratganj, Lucknow) Age of epiphyseal union at the wrist joint in Uttar Pradesh. *J. Indian med. Ass.*, 1958, **30**, 389-395. An X-ray study was made of 200 men and 200 women aged from 15 to 22 years at several centres in Uttar Pradesh, to find whether union of the distal epiphyses of the radius and the ulna with their shafts had taken place. It was found that in men union was complete in the radius in 77% and in the ulna in 80% of the age group 20 to 21, and that in women union was complete in the radius in 84% and in the ulna in 98% of the age group 18 to 19. The results are compared with others obtained previously in India and elsewhere. —I. McDonald (Nutrition Abstr., 29:983).

607. MILLIS, J. (Univer. Malaya, Singapore) The effect of an equatorial climate on birth weight and subsequent weight of infants. *J. trop. Pediat.*, 1957, **3**, 105-109. The Chinese and Indian infants studied were born in a maternity hospital to mothers from lower income groups, admitted to the third class wards, and included all single infants graded physically mature; during 1951 there were 4935 males and 4550 females from parents of Chinese ancestry and, during 1950 and 1951, 761 males and 704 females from parents immigrated from the south of India. Mean birthweights are tabulated by month of the year, but differences were small and it was concluded that season itself had little effect. Weights of 60 male and 76 mature single Caucasian infants were studied in the first nine months after birth, 480 and 592 measurements, respectively. The parents were of the middle and upper income groups. The weights are compared with those of Caucasian infants in Australia and Edinburgh, and it is concluded that the progress of the infants was not adversely affected by the climate of Singapore. —D. Duncan (Nutrition Abstr., 28:5642).

608. MILLIS, J. (Univer. Malaya) Growth of preschool Chinese and Southern Indian children in Singapore. *Med. J. Malaya*, 1958, **12**, 531-539. During 1951-1954 heights and weights of 189 male and 134 female Chinese children and 245 male and 254 female Southern Indian children were recorded at intervals of 3 months. The study was longitudinal but not all the children were included for the whole period. Mean heights and weights with standard deviations at ages from 6 months to 5 years by 3-month intervals are recorded for boys and for girls of each race, with published data for Malay and English children. The average weights of the Asian children were below those of the English at all ages and the difference increased with age. The Indians weighed less than the Chinese and Malay children. Average increases of weight between 6 months and 1 year and during each year from 1 to 5 are tabulated. The Chinese made the smallest total gains and the English the largest. Annual gains tended to decrease with increasing age. The Asian groups were consistently shorter and gained less height, especially the girls, between 1½ and 5 years than the English. Indian children gained more height between 1½ and 5 years than did Chinese and Malay children and were the tallest of the Asians at age 5 years. —F. C. Aitken (Nutrition Abstr., 29:980).

609. MILLIS, J. (Univer. of Malaya) Growth of preschool Malay infants in Singapore. *Med. J. Malaya*, 1957, **12**, 416-422. The children were all Malays from the families of constables and corporals of the Police Department of Singapore, housed by the department in modern blocks of flats. Records were made at 3-monthly home visits between February 1955 and February 1957; children of multiple births and those with obvious physical defects were omitted. There were 2079 measurements of weight and 1814 of length for 526 males and 1940 and 1593 measurements for 526 females, for ages from 3 months to 6 years. The measurements are tabulated and are compared with measurements of Caucasian children in London and in Boston, Mass. Although the Malay infants showed a continuous gain of weight, their progress was slower than that of Caucasian children and the differences in mean weights increased with age. Average gains between 3 months and 5 years for boys were Malay 21.31,

English 27.54 and American 28.06 lb., and for girls 20.97, 27.41, and 28.93 lb. The Malays were also shorter at all ages and length increased more slowly. It is not known to what extent the slower growth of the Malay children is associated with poor nutrition. —D. Duncan (Nutrition Abstr., 28:5646).

610. NOVÁKOVÁ, MARIE. *Sledování změn tvaru hrudníku p ři některých onemocněních v dětském věku.* (Changes in the shape of the thorax in various diseases of childhood.) *Cesk. Pediat.*, 1960, **15**, 678-685. The changing shape of the thorax during several disease states, particularly of the respiratory apparatus, was followed. Changes were measured by measurement of the dimensions of the thorax, and by kyrtometry. The thorax was measured in the transverse, saggital and oblique axes, and a schematic plan was formed to show unilateral changes. The kyrtometer, constructed by us, was used to the same end. This instrument shows the shape of the thorax in a given plane, showing all deformations and asymmetries. Repeated observations with this instrument enables the course of the disease, or the effect of therapy, to be evaluated. —English Summary.

611. SCHOLZ, C., & SCHOLZ, E. (Lindauer Str. 9, Berlin) *Die Plus- und Minus-variante des Gewichtsansatzes in 1. Trimenon.* (The plus and minus variations of weight gain in the first three months.) *Z. Kinderheilk.*, 1958, **81**, 271-292. Of the normal babies examined 60% showed the plus variant, i.e., an accelerated weight gain of up to 50 g. daily beginning 2 to 3 weeks after birth and subsequently falling to 25 to 35 g. daily between the ages of 2 and 3 months. About 25% showed the minus variant, steady weight gain of 25 to 35 g. daily. In premature babies only the minus variant was found. In normal babies the correlation between weight at birth and the minus variant is slight, but between breast feeding and the plus variant it is high. In more than half the subjects body length ran parallel to weight gain. Upsets of changes of diet during the first 3 months, especially in premature babies, led to pauses in growth, and loss of weight was not subsequently made up. —I. R. Anderson (Nutrition Abstr., 29:976).

612. SCHOLZ, E. (Lindauer Str. 9, Berlin) *Zum Problem des sogenannten Habituswandels im Schulkindalter.* (The problem of so-called change of build in children of school age.) *Z. Kinderheilk.*, 1958, **80**, 451-460. The measurements of 100 children recorded at the mid-year from 6½ to 13½ years of age were analysed to show that some grow at an almost constant rate and are of a "mesosomatic" shape to puberty; others grow extremely slowly or extremely rapidly, without changing shape, and yet others with abrupt changes in rate of growth of different parts of the body, so that shape changes. The measurements used were total height and height to the top of the symphysis pubis, which is taken as "leg length," and body length is derived as total less symphysis height. —I. Leitch (Nutrition Abstr., 28:5648).

613. SOLLEY, WILLIAM H. *Relationship of selected factors in growth derivable from age-height-weight measurements.* *Res. Quart. Ass. Hlth phys. Educ. Rec.*, 1960, **31**, 92-100. With children in grades one to eight, the measures studied were CA, height, and weight, and combinations of these measures as reflected in body shape, body size, developmental age, and ratio of physical development; these were plotted over a five-year period on the Wetzel Grid. Among the findings were: the auxidrome panel evidently accounts adequately for the accelerated adolescent growth pattern; the number of development levels achieved by the student in a given period of time is a significant factor in marked deviations in growth curves from normal during the same period; excessive changes in physique and in speed of growth were reflected significantly in ratio of physical development; some correlations between factors included in the study decreased and others increased as grade levels increased; some doubt was cast on the value of developmental level as an improved measure of body size. —H. H. Clarke.

614. SWINDLER, DARIS R. (Med. Coll. of South Carolina, Charleston) *Calcification of the permanent first mandibular molar in rhesus monkeys.* *Science*, 1961, **134**, 566. Evidence suggests that in rhesus monkeys calcification in the mandibular

permanent first molar commences much earlier than has been previously reported. This tooth is the first secondary dental element to calcify, as it is in man. —Abstract.

615. SYLVESTER, P. E. (Inst. Child Hlth, Univer. London) **Weights of newborn infants, seventeenth and eighteenth centuries compared with the mid-twentieth century.** Brit. med. J., 1958, 1, 1349-1350. Measurements of knuckle circumference and of weight made on present-day infants were used to estimate the weights of a number of 17th and 18th century infants whose knuckle circumference was estimated from the size of their christening mitts. The estimated weights agreed closely with the weights of modern infants at 15 days of age, the median age of baptism 200 to 300 years ago. —A. W. Boyne (Nutrition Abstr., 29:975).

616. ZARDINI, V. (1st Provinciale Assistenza Infanzia, Verona) **Alcuni rilievi auxiologici sui lattanti ricoverati nell'I.P.A.I. e importanza dei fattori psichici sullo sviluppo del lattante stessi.** (Reports on growth of infants in the I.P.A.I. and the importance of psychological factors for the development of the same infants.) Lattante, 1958, 29, 95-102. In Verona the development of groups of babies was studied by means of a scale which grades growth in 3 degrees, "tipauxia," "disauxia" and "auxopatia." The percentage classified as showing typical growth, tipauxia, was for 73 breast-fed babies 84.9, for 83 fed artificially by the mother 79.5, and for 63 fed artificially by the staff of the Institute 39.6. No breast-fed baby showed the worst grade of growth, auxopatia, but 2 and 3 in the artificially fed groups did so. Of 137 weaned infants, 55.4% showed typical growth. The inferior growth of the groups not fed by the mother is attributed to the lack of psychological stimuli deriving from her. —E. M. Hume (Nutrition Abstr., 29:977).

PHYSIOLOGY AND BIOCHEMISTRY

617. ANDERSON, ERNEST C., & LANGHAM, WRIGHT H. (Univer. of Calif., Los Alamos, New Mexico) **Estimation of total body fat from potassium-40 content.** Science, 1961, 133, 1917. A brief review is given of the development of methods for the determination of total body potassium by whole-body scintillation counting and of studies to establish the utility of body potassium as a measure of gross body composition including fat. —Abstract.

618. CLARK, A. C. L., & GAIRDNER, DOUGLAS. (Univer. of Cambridge, England) **Postnatal plasma shift in premature infants.** Arch. Dis. Childh., 1960, 35, 352-354. In premature infants, as in normal infants, birth is frequently followed by a rapid rise in the Hb concentration, and in the packed cell volume of venous blood, while the mean corpuscular Hb concentration of the red cells increases. The cause of these changes is considered to be a considerable loss of plasma from the vascular compartment, and a small shift of fluid from the red cells. The site at which the plasma leaves the vascular compartment remains undecided. It was suggested that the shift might take place particularly from the pulmonary circulation and so contribute to the development of pulmonary oedema and respiratory failure in the premature infant, but the development of respiratory distress in the premature infants studied could not be shown to be related to the magnitude of the plasma shift. —Authors' Summary.

619. COELHO, G. (Bombay Hosp., India), & SIMMONS, C. **Fetal hemoglobin at various ages in children and in anaemias of children.** Indian J. child Hlth, 1960, 9, 274-278. (1) 273 samples of cord blood and 302 samples of venous blood from infants and children up to 10 years of age were examined for Hb-F and its content determined by the method of Singer et al. (2) The cord blood contained on an average of 58.47% Hb-F. (3) The content falls rapidly after birth to 8.9% at four months, 4% at one year, 2.3% at 18 months and 2.2% at 2 years. (4) The Hb-F of the cord

blood of the 5½ lb. baby is the same as that of the next higher weight group namely 6 lb. baby, but there is a significant difference between the 5 lb. and the 4½ lb. baby. (5) The average adult hemoglobin in the cord blood was 41.53%. (6) There is no significant difference in the level of Hb-F in the blood of children with hypochromic microcytic anaemia and the normal children of that age. . . . Authors' Summary.

620. EMERY, J. L., & MITHAL, A. (Children's Hosp., Sheffield, England) **The number of alveoli in the terminal respiratory unit of man during late intrauterine life and childhood.** Arch. Dis. Childh., 1960, **35**, 544-547. A systematic and statistical study has been carried out on the lungs of children dying during the later part of gestation and through childhood up to 12 years of age. An estimate has been made of the number of alveoli in the terminal respiratory unit and this shows a rapid increase during the first year after birth and a steady increase throughout childhood, there being apparently a nine-fold increase in the alveoli after birth. If consideration is also given to the increased proliferation of the respiratory tree after birth, there is the possibility of a thousand-fold increase in the number of alveoli between birth and puberty. —Authors' Summary.

621. FISCHER, ALFRED E., & MOLOSHOK, RALPH E. (Mount Sinai Hosp., New York City) **Diabetic and prediabetic pregnancies with special reference to the newborn: a 5-year study.** J. Pediat., 1960, **57**, 704-714. An analysis is presented of our experience with infants born to 97 diabetic women and to 62 women with histories suggesting the prediabetic state, corroborated by decreased tolerance to the ingestion of glucose. Methods of management of the mother and of the infant during the neonatal period are described. Careful long-term medical and obstetric attention exert a favorable influence upon fetal survival. In the present series of 124 pregnancies among women with diabetes there was a total fetal loss of 23%, and 16% loss of viable births and a neonatal mortality of only 8%. This is compared with the past-pregnancy experience of this group of women under other auspices; of 53 pregnancies there was a total loss of 68%, a loss of 53% of viable fetuses and 35% of live births. Factors detrimental to the fetus of a diabetic mother are active in the 5-year period immediately before the onset of maternal diabetes but do not appear to operate earlier. The outcome of pregnancies did not correlate with the duration of the diabetic state. In 16 pregnancies among mothers with diabetes of 20 years' or more duration, 13 of 14 viable births survived. Other evidence indicates that the occurrence of fetal or perinatal death does not rule out the probability of a surviving infant from a subsequent pregnancy. The outcome of 217 pregnancies among 62 women with histories suggesting the prediabetic state and who had decreased tolerance to the ingestion of glucose has been tabulated. A fetal loss of 11% of 64 pregnancies personally observed compares with a total loss of 30% of 155 pregnancies by previous history. On the basis of the per cent of live births that survived, the two groups are essentially the same; 5% died in the group observed and 8% in the "history" group. The management of infants born to diabetic mothers is reviewed. Careful observation and good medical and nursery care are considered the most important factors favorably influencing survival. —Authors' Summary and Conclusions.

622. GANDEVIA, BRYAN. (Royal Children's Hosp., Melbourne) **Normal standards for single breath tests of ventilatory capacity in children.** Arch. Dis. Childh., 1960, **35**, 236-239. Indices of ventilatory capacity derived from the forced expiratory spiograms of a series of healthy school children are related to standing height. Attention is drawn to certain differences between the sexes in regard to the proportion of the vital capacity expired in the first second or half-second of a forced expiration. —Author's Summary.

623. HOSTOMSKÁ, L., HORÁČKOVÁ, M., & VALENTOVÁ, J. **Některá kritéria růstu u dětí s prostou alimentární obezitou.** (Some growth criteria in children with simple alimentary obesity.) Cesk. Pediat., 1960, **15**, 686-690. The heights of 637 children with simple alimentary obesity (325 boys, 312 girls, from 6 to 15 years of age) were measured. The obesity in this group was either moderate (3 to 5 sigma

above average weight) or severe (more than 5 sigma) as compared with the national height-weight averages of 1951. The obese children in this age group (6 to 15 years) were taller than average. 114 separate growth curves have been prepared of children of weight more than 3 sigma above average, followed regularly for 5 years, and these show above average growth curves over the entire course of obesity, more so in boys. It was further determined that in the 10 year old group, the height excess no longer depended directly on weight. The bone age of 118 children of this group showed advancement, usually of the order of 1 year, in 13%. Alkaline phosphatase was raised in 42% of the age group from 6 to 10 years, in 87% of the obese children in the 10 to 15 year age group. Soft goitre was a relatively rare finding (1 1/2 %). —English Summary.

624. HOSTOMSKÁ, L., & KOTTOVÁ, V. Některá metodická kritéria při diagnostice a léčbě malého růstu v dětském věku. (Some methodological criteria in the diagnosis and treatment of growth retardation in childhood.) *Cesk. Pediat.*, 1960, **15**, 691-695. The following criteria have been used in the diagnosis and treatment of growth retardation in children: height, weight, ossification, serum alkaline phosphatase, and general clinical and laboratory investigation. The last named criterion includes the large number of constitutional growth retardations in the Czech population and is considered the most important. These criteria characterize children into etiological groups very well, the entire group consisting of 157 children in the age range 3 1/4 to 15 1/2 years. Of this group 27 with hypopituitarism, 39 with hypothyroidism, 16 with chondrodystrophy, 18 with Turner's syndrome, and 57 with congenital growth retardation received 25 mg. of methylandrostenediol daily for 1 year. The height deficit before treatment was greatest with hypopituitarism and hypothyroidism (—6 1/2 sigma), followed by chondrodystrophy and Turner's syndrome (—6 sigma) and congenital retardation (—5 sigma). The best improvement after therapy was with hypothyroidism (2 sigma higher), while the other groups improved by one sigma. Weight improved commensurate with height in hypopituitarism and Turner's syndrome and became normal in the other groups. Ossification was retarded the most in hypothyroidism (about 8 years), less in congenital retardation (6 years), least in hypopituitarism (4 years). Therapy had the greatest ossification effect on the most retarded initial groups. Before therapy, alkaline phosphatase was low (3 to 10 KA units, and rose during treatment (12 to 38), which is great significance for confirming the diagnosis and following treatment effects. —English Summary.

625. KESSEL, I., & POLITZER, W. M. (Univer. of Witwatersrand, Johannesburg, South Africa) **Blood uric acid levels in mothers and infants at birth.** *Arch. Dis. Childh.*, 1960, **35**, 310-311. "This study shows the rather wide range of blood uric acid levels existing in the cord blood of normal male and female newborn infants and in their healthy mothers' blood taken at the time of delivery; there does not appear to be any correlation between these uric acid levels. In three cases the mother's level was over 6 mg./100 ml. and in two infants cord blood levels were also above this figure; only in one case was the level about 6 mg./100 ml. in both the mother and her female infant."

626. KUNNAS, MARJATTA. (Univer. of Helsinki, Finland) **Gestation age and growth of premature infant.** *Ann. paediat. Fenniae*, 1960, **6**, 103-111. The series, consisting of 141 premature infants, was divided by gestation age into two groups, those of 32 weeks or less and those over 32 weeks. These groups were divided into subcategories according to weight and length. The upper weight limit was 1,600 gm. and the length limit 40 cm. It was found that during the first two months the old and small premature infants showed the greatest average rate of growth but nevertheless lagged most behind the normal values. The majority of those who died (27 out of 46) were young and small premature infants. —Author's Summary.

627. LINDEN, L. W. F., KORTTILA, K., & VIITANEN, I. (Univer. of Turku) **Plasma volume in infants.** *Ann. paediat. Fenniae*, 1960, **6**, 119-123. In a series of 10 infants, 8 of them under one year of age, plasma volume determinations showed

a good correlation between weight and plasma volume. The plasma volume per kg was 50.5 ml/kg, range 43.5 to 57.1 ml/kg. Assessment of fatness by the specific gravity method did not improve the correlation. The correlation between lean body mass (LBM) and plasma volume was poorer than the correlation between weight and plasma volume. No conclusions could be drawn concerning the influence of fatness on plasma volume per kg. —Authors' Summary.

628. MEČÍŘ, M., & ŠABATA, V. Vliv výživy matky v těhotenství na porodní váhu dítěte a na jeho váhový vývoj v 1. roce života. (The influence of maternal nutrition in pregnancy on birth weight of the newborn and its growth curve in the first year of life.) *Cesk. Pediat.*, 1961, **16**, 20-25. The influence of maternal nutrition during pregnancy on birth weight of the newborn, incidence of prematurity, health status and somatic development of the child, has been determined. Intake of nutritional factors was followed up in five-day periods during each trimester in 280 women. The nutritional state of the women was good, with an average intake of 3000 cal. and 80 to 90 g. of protein daily. Individual differences in the nutrition of these women did not affect the somatic development of the children or the health status. This indicates a generally good level of nutrition of pregnant women in Czechoslovakia. —English Summary.

629. RICH, GEORGE Q. Muscular fatigue curves for boys and girls. *Res. Quart. Amer. Ass. Hlth phys. Educ. Rec.*, 1960, **31**, 485-498. Exponential fatigue curves for dynamic work of the forearm muscles were obtained from 200 boys and girls ranging from 8 to 17 years of age. The fatigue parameters analyzed in relation to initial strength were fatigable strength, steady-state equilibrium strength, and relative rate of strength loss per contraction. Older children were stronger and exhibited greater fatigue. When their strength loss and steady-state levels were considered in relation to their initial strength capacity, there were no age differences in fatigability, and sex differences were either absent or very small. At age 8, boys and girls had equal rates of strength loss per muscle contraction. Older boys, since they exerted more strength initially, tended to reach the fatigue level more rapidly than younger children. Older girls reached their fatigue level more slowly. —H. H. Clarke.

630. SCHREIDER, EUGENE. Suppression de l'accélération cardiaque à l'effort chez l'homme couché. (Suppression of cardiac acceleration after physical effort in subjects lying down.) *Biotypologie*, 1959, **20**, 78-82. Physical effort leads to cardiac acceleration, lying down to a slowing down. To study the combined effect of these factors 145 subjects were examined while doing a fatiguing exercise lying down. In spite of their exhaustion there was a drop in their heart rate from the standing frequency. —S. G. Vandenberg.

631. SCRIMSHAW, NEVIN S., & BÉHAR, MOISÉS. (Inst. Nutrition of Central America and Panama) Protein malnutrition in young children. *Science*, 1961, **133**, 2039-2047. "Research on the problem of protein malnutrition in children is now being actively carried on throughout the world, and this article attempts to define the present status of our knowledge in a still dynamic and rapidly progressive field. . ."

632. SJÖSTEDT, S. (Univer. Hosp., Lund, Sweden), ROTH, G., & CALIGARA, F. The oxygen tension of the blood in the umbilical cord and the intervillous space. *Arch. Dis. Childh.*, 1960, **35**, 529-533. The oxygen tension in the umbilical vein at the time of delivery in normal cases ranges from 6 to 46 mm. Hg with a mean of 29.3 mm. Hg. In the umbilical arteries the range is from 6 to 32 mm. Hg with a mean of 18.3 mm. Hg. The mean values in a group of slightly asphyxiated infants in both arteries and vein is a few mm. Hg lower. The mean value in the umbilical vein is the same in the normal group as in the group of infants with meconium stained amniotic fluid, but the mean value in the arteries in this group is about the same as in the asphyxiated group. In the intervillous space the mean pO_2 in 25 cases is 39.9 mm. Hg. —Authors' Summary.

633. STRANG, L. B. (Univer. of Durham, England) Measurements of pulmonary diffusing capacity in children. Arch. Dis. Childh., 1960, 35, 232-235. Measurements of the diffusing capacity for carbon monoxide (Dco) in children are presented. The method appears to have a limited application in the study of pulmonary diseases in children. —Author's Summary.

CLINICAL MEDICINE AND PATHOLOGY

634. ANDERSON, CHARLOTTE M., & FREEMAN, MAVIS (Royal Children's Hosp., Melbourne) "Sweat test" results in normal persons of different ages compared with families with fibrocystic disease of the pancreas. Arch. Dis. Childh., 1960, 35, 581-587. The range of sweat sodium and chloride levels obtained by stimulation with mecholyl in normal persons from birth to old age has been determined. A slight increase in concentration of these electrolytes has been found with increasing age in childhood. There is a greater increase and variation at and after puberty. No difference has been observed in the results from 100 normal adults over 20 years of age and 100 parents of fibrocystic children. No difference has been observed in the results from 61 healthy siblings of fibrocystic children and other children up to 15 years of age. No difference has been observed in the results from 100 normal children and 100 children with chronic chest illness other than fibrocystic disease of the pancreas. These results do not provide evidence that the carrier state of fibrocystic disease can be determined from raised levels of sweat sodium and chloride, nor that chest disorders in children show altered levels of these sweat electrolytes. The "sweat test" is of limited value in the diagnosis of fibrocystic disease of the pancreas in young adults or older persons. Generalizations regarding genetic constitution in families of fibrocystic children should await further knowledge of the normal mechanism of control of sweat electrolytes and the basic defect in fibrocystic disease. —Authors' Summary.

635. BARTER, R. A., & MADDISON, T. G. (Royal Women's Hosp., Melbourne) The nature of the neonatal pulmonary hyaline membrane. Arch. Dis. Childh., 1960, 35, 460-464. Detailed microscopic study of the lungs of premature infants affected by hyaline membrane disease shows that the membranes result from epithelial cell necrosis in respiratory bronchioles and form in situ. A description of 133 cases of hyaline membrane disease including clinical features is presented. —Authors' Summary.

636. COLES, B. L. (Royal Free Hosp. Med. Sch., London, England) Serum protein pattern in infants with nutritional disorders. Arch. Dis. Childh., 1960, 35, 271-275. The serum protein pattern in 20 normal infants and in 47 infants with nutritional disturbances was examined by paper electrophoresis. The albumin fraction was significantly lower than normal in all the infants who had failed to thrive regardless of the aetiology of their condition. The alpha and gamma globulins tended to be higher than normal, the beta globulin and total protein showed no change. The group of infants with chronic diarrhoea showed the most pronounced changes in the protein pattern and also the most severe loss of weight. This group also had the most marked depression of pancreatic function but no definite correlation between serum albumin, percentage of expected weight or titre of duodenal trypsin could be established. The serum protein pattern is of no help in specific diagnosis in infants who fail to thrive, the changes being non-specific. —Author's Summary.

637. CRAIG, W. S. (Univer. of Leeds, England) Convulsive movements occurring in the first 10 days of life. Arch. Dis. Childh., 1960, 35, 336-344. The clinical findings in 374 newly-born babies who had convulsions commencing within 10 days of birth are presented. The pathological findings in 158 fatal cases are considered in relation to clinical observations made during life. Surviving cases are considered

according as the diagnoses were proven or presumptive. Attention is drawn to the characteristics of convulsions arising in cases of cerebral agenesis. Emphasis is attached to the absence of "febrile convulsions" and of convulsions in association with uncomplicated cardio-respiratory syndrome. The occasional occurrence of convulsions in the presence of cerebral oedema and hypothermia is noted. The influence of prematurity and the prognostic significance of transient minimal convulsions in premature babies are discussed. —Author's Summary.

638. DEUSCHLE, R. M., TAKACS, E., & WARKANY, J. **Postnatal dentofacial changes induced in rats by prenatal riboflavin deficiency.** J. dent. Res., 1961, 40, 366-377. Rats with facial anomalies caused by maternal riboflavin deficiency were brought to maturity. At the time of the eruption of the incisor teeth the malocclusion became more severe. There was no correction during 18 months of life, despite a normal diet. Defective rats, when mated, had normal offspring. —W. M. Krogman.

639. DOLEŽALOVÁ, JAROSLAVA. **Monocytoqram u nedonošených dětí.** (The monocytoqram in premature infants.) Česk. Pediat., 1961, 16, 45-48. The monocytoqram of 30 prematures were estimated for the weight group below 2 kg., between 2 and 2.5 kg., and in infants with lesser complications during the first postnatal days. Values were compared with those from mature infants, and characteristic curves of individual morphological and functional groups of monocytes were demonstrated, along with the practical significance of the monocytoqram for evaluation of the reactivity of the infant during complications in the neonatal period. —English Summary.

640. HARRIS, R., & TIZARD, J. P. M. (Hammersmith Hosp., London, England) **The electroencephalogram in neonatal convulsions.** J. Pediat., 1960, 57, 501-520. (1) An account is given of the EEG abnormalities encountered in 41 infants who developed convulsions in the early neonatal period. (2) Certain relationships were noted between the type of fit and the EEG abnormality. (3) The main types of fit seen in the newborn baby, distinguished both clinically and electroencephalographically, are two-fold: the first type is possibly the consequence of previous anoxia and the second is associated with acute anoxia. (4) The significance of the neonatal EEG in terms of disordered physiology, diagnosis, and prognosis are discussed. —Authors' Summary.

641. KEITEL, H. G. (Jefferson Med. Coll., Philadelphia, Pa.), COHN, R., & HARNISH, D. **Diaper rash, self-inflicted excoriations, and crying in full-term newborn infants kept in the prone or supine position.** J. Pediat., 1960, 57, 884-886. Newly born infants kept in the prone (stomach) position have less diaper rash, self-inflicted excoriations (scratch marks), and cry less than infants kept in the supine (back) position. —Authors' Summary.

642. KITCHEN, W. H. (Univer. of Melbourne, Australia), KRIEGER, VERA I., & SMITH, MARGERY A. **Human albumin in exchange transfusion.** J. Pediat., 1960, 57, 876-883. (1) The percentage exchange of plasma, of fetal red blood cells, and of bilirubin was determined in 20 infants with erythroblastosis fetalis. (2) In 10 of these patients salt-poor concentrated serum albumin was introduced into the exchange medium. (3) A striking improvement in extraction of bilirubin was observed in the albumin-treated group. (4) Only trivial technical difficulties were encountered. (5) No deaths occurred in either series. (6) The possible mode of action of human albumin is discussed. (7) Indications and contraindications for the use of human albumin are outlined. —Authors' Summary.

643. MAHINDRU, S. N. (Subsidiary Control Lab., Rajkot), & SILHAR, A. S. **Cholesterol content of mother's milk of children with rickets.** Indian J. Child Hlth, 1960, 9, 474-477. (a) Cholesterol content of breast milk of 50 mothers of rachitic children is estimated and compared with that of 16 controls. (b) It is established that the cholesterol content in the morbid group is significantly low as compared to the control group. (c) It is postulated that the low cholesterol content is responsible for the causation of rickets in breast fed children. —Authors' Summary.

644. MILLER, J. LOWRY (Columbia Univer. Coll. Physicians & Surgeons, New York City), **MEYER, PAUL G., PARROTT, NORMAN A., & HILL, JUSTINA H.** **A study of the biologic falsely positive reactions for syphilis in children.** *J. Pediatr.*, 1960, **57**, 548-552. (1) An incidence of 11% of biologic falsely positive reactors has been observed in a series of 400 selected infants and young children. (2) Passive transfer was noted in 66% of infants born of mothers treated for syphilis and in only 5% of infants born of mothers with the biologic falsely positive reaction. No anti-syphilitic treatment should be given to these infants. (3) 18% of infants born of mothers with biologic falsely positive reactions developed a similar reaction, whereas only 8% of infants born of mothers treated for syphilis had this reaction. (4) The incidence of systemic disease associated with biologic falsely positive reactions was not high, probably because of the very young age of the patients. —Authors' Summary.

645. PARTINGTON, M. W. (Univer. of Sheffield, England) **The importance of accident-proneness in the aetiology of head injuries in childhood.** *Arch. Dis. Childh.*, 1960, **35**, 215-223. Two series of children with head injuries were studied. The first series consisted of 1,180 cases admitted to a children's hospital over a period of seven years. The ratio of boys to girls was 2.3 to 1. The maximum incidence of cases was in the middle years of childhood. More cases occurred in the summer than the winter months. There was no significant variation in the number of cases according to the day of the week. Two peak frequencies occurred during the day, one at noon and a larger one at 5 to 6 p.m. Falls were the commonest type of accident. Only 1.6% of the children had more than one head injury; none had more than four. In the second series, 30 children with head injuries were matched by age and sex with 30 acute medical cases. No difference was found in the incidence of accidental injuries in the past or family histories of these two groups. A third of the children, and half their parents had a history of accidental injury. The children with head injuries came from slightly larger families. These findings are discussed. No evidence of accident-proneness was found apart from increased liability associated with the male sex. —Author's Summary.

646. SCHWARZ, V. (Univer. of Manchester, England) **The value of galactose phosphate determinations in the treatment of galactosaemia.** *Arch. Dis. Childh.*, 1960, **35**, 428-432. Hereditary galactosaemia is characterized by a deficiency of the enzyme galactose phosphate uridylyltransferase, which catalyses the conversion of galactose-1-phosphate to glucose-1-phosphate. The deficiency leads to an intracellular accumulation of gal-1-P when the patient's diet contains galactose. There is evidence indicating that this phosphate inhibits a number of enzymes and that by these, or other, means it interferes with normal cellular metabolism. Analysis of necropsy material has shown that galactose phosphate is deposited in several, if not all, tissues, thus probably accounting for the diverse ill-effects constituting the galactosaemic syndrome. The determination of gal-1-P in the erythrocytes affords a ready means of assessing the adequacy of treatment, of which the disappearance of frank symptoms is an insufficient guide. The amounts of galactose potentially capable of damaging cellular metabolism are quite small. This fact and the wide distribution of galactose impose a heavy burden on the galactosaemic patient's mother and clinician alike, thus rendering a regular check by galactose phosphate determination desirable. An improved method for the estimation of galactose phosphate in erythrocytes is presented. —Author's Summary.

647. SMYTHE, P. M., & BOUCHIER, I. A. D. (Univer. of Cape Town) **Cortical atrophy of the brain in infants associated with failure to thrive.** *Arch. Dis. Childh.*, 1960, **35**, 328-332. A series of infants is described in which failure to thrive was the presenting symptom. All of them had heads that were small in circumference and, if not apparent when first seen, subsequently showed evidence of marked mental retardation. All of them had abnormal air encephalograms which were interpreted as indicating cortical atrophy of the brain. In infants the association of cortical atrophy of the brain with failure to thrive does not appear to have been previously recorded. —Authors' Summary.

PSYCHOLOGY

648. ADAMASHVILI, N. G. **Interrelation of size and remoteness of objects as reflected in a fixed set.** Vop. Psikhol., 1960, No. 3, 31-45. In a set for inequality of objects (circles) not only size interrelations but rather the very sizes of objects are reflected, and therefore, its effect on the perception of critical objects (equal circles) is dependent on the relation of the size of the latter and the size of the set objects. By increasing the difference between set and critical objects (circles) the set effect is weakened. However, this law is subject to variations brought about by the remoteness of objects from the subject; consequently, both the size and remoteness of objects are reflected in the inequality set. By shifting the point of vision fixation to another place, closer to or away from the position of set objects, set generalization with respect to size takes place. As a result, the field of set extends towards the smaller or larger sizes according to whether the point of vision fixation is brought to or away from the subject, respectively. —English Summary.

649. ANGRILLI, ALBERT F. (New York Univer., New York City) **The psychosexual identification of preschool boys.** J. genet. Psychol., 1960, 97, 329-340. It was hypothesized that there would be a relation between a boy's sex identification patterns and those of his parents and that boys with strong masculine identification would have parents with strong sex appropriate identification while boys showing rejection or weak acceptance of masculine identification would have parents who showed weak identification. 30 preschool boys between the ages of 4 and 5 were rated by nursery school teachers on the Activity Preference Check List and on a Behavior and Personality Rating Scale. Each parent of the 30 subjects filled out the Strong Vocational Interest Blank and the Terman-Miles Attitude Interest Analysis. All subjects and their parents took the Figure Drawing Test. Based upon these measures the boys and their parents were assigned scores indicating strength of appropriate sexual identification. The results indicated no significant relations between boys and parents on any individual instrument or combination of instruments. The results are discussed with relevance to their import for the theories of psychosexual identification. —F. D. Horowitz.

650. ASHER, JOHN WILLIAM. (Univer. of Pittsburgh, Pa.) **Comment on "The relationship between rigidity-flexibility in parents and their children."** Child Developm., 1961, 32, 607-608. The 1959 article by Blum cited in the title was reviewed with reference to the finding, "... a significant relationship [between child and parent's rigidity-flexibility measures] was found when both parents were considered." This finding is in error. From the data provided it must be concluded that there is no relationship. —Author's Abstract.

651. BECHER, BARBARA ANN. (Fordham Univer., New York City) **A cross-sectional and longitudinal study of the effect of education on free association responses.** J. genet. Psychol., 1960, 97, 23-28. The effect of education upon the individuality of responses given on the Kent-Rosanoff Free Association Test, with IQ controlled, was studied by comparing 136 college freshmen and 136 college seniors in a cross-sectional analysis. Responses of 100 of the college freshmen were compared with responses of these same subjects when they were seniors in a longitudinal analysis. The results of the cross-sectional analysis revealed a significantly higher mean score of individual responses for seniors, using both a .001 and a .01 criterion, and a lower popular response score, using both the Kent-Rosanoff and Schellenberg frequencies. Analysis of the longitudinal data yielded similar results. The author concludes that three years of education significantly affects the degree of individuality of free responses. —F. D. Horowitz.

652. BORSTELMANN, L. J. (Duke Univer., Durham, North Carolina) **Sex of experimenter and sex-typed behavior of young children.** Child Developm., 1961, 32, 519-524. Alternative hypotheses of constant or inconsistent effects of experimenter

sex difference upon the responses of young children to three measures of sex-typing were studied by means of a test-retest design under two conditions of change or constancy of sex of experimenters. The results yielded clear evidence that sex of experimenter was not a significant variable. Sex and age differences in degree of appropriate sex-typing, and the limited communality among the measures, were noted. —Author's Summary.

653. BREHM, JACK W. (Duke Univ., Durham, N.C.) **Attitudinal consequences of commitment to unpleasant behavior.** *J. abnorm. soc. Psychol.*, 1960, **60**, 379-383. This study tested a "nonobvious" hypothesis derived from Festinger's theory of cognitive dissonance: given the fact that a person is committed to an unpleasant behavior, he tends to increase his liking for that behavior more if he is exposed to information against engaging in it than if he is exposed to information favorable to engaging in it. This tendency is anticipated to be in proportion to the amount of such behavior to which he is committed. The hypothesis was tested by inducing junior high school students to commit themselves to eating different amounts of disliked vegetables. Fictitious research reports to which they were exposed said their vegetable was either high or low in food value. Estimates of food value and liking for the vegetable were measured before and after the experimental inductions. It was found that the communications about food value tended to be believed or disbelieved as a function of the amount of eating to which the person was committed. In addition, the main experimental hypothesis, as stated above, was supported. —Author's Summary.

654. BROOKS, SYLVIA. (40 Kirkland St., Cambridge, Mass.) **Complexity of task and other situational variables as factors in rigidity behavior of fifteen-year-olds.** *J. genet. Psychol.*, 1960, **97**, 385-403. 160 fifteen-year-olds took batteries of concept formation tests designed to measure Einstellung effects as a function of certain situational variables. The tests used were verbal sorting tests, nonverbal sorting tests, verbal exceptions tests, and nonverbal exceptions tests. Two main criteria of rigidity behavior were used: (1) the inability to shift to a new method when a previous method no longer worked; (2) the tendency to persist in the use of a method when another good method was available. It was hypothesized that Einstellung effects would vary with the complexity of task, type of task, and also with the habituating and non-habituating character of prior problems taken. The hypotheses were supported in part. The evidence suggests rigidity behavior varies partly as a function of complexity of task. Habituation to a certain method was related to Einstellung effects according to the second criterion but not the first. It was concluded that situational factors are important variables in rigidity behavior. —From Author's Summary.

655. BRZEZINSKA, ZOFIA. **Dzisiejsza postawa życiowa (społeczna) młodzieży w świetle jej własnych opinii.** (The attitude of today's youth towards life.) *Psychol. Wych.*, 1960, **3**, 150-166. The author reports about certain aspects of research conducted by the Educational Psychology Department at Warsaw University dealing with some of the social attitudes of young people. Investigations took place with the help of films. Trying to find the reasons which influence the attitude of present-day youth, those under investigation pointed, above all, to the bad influence of the environment and lack of proper care on the part of the school, home, and society (29.9%), disappointment (21.7%), and lack of opportunity to have a good time (18%). Young people consider it possible to change their attitudes, provided they would have opportunity to enjoy life (61.9%), which means opportunities for cultural entertainment, to join various organizations, clubs, and specialized circles. In these statements particular stress is laid on the positive aspects of collective life (more than 75%), however, only in smaller groups, set up mainly on the basis of the special interest of a given group of young people. Almost half of those examined nevertheless do not believe in the possibility of help on the part of a youth organization. The remaining statements made by the young people, dealing with the possibility of changing the attitude of youth, stressed the point that the older generation should introduce better educational methods (14.2%), and should also surround young people with greater care (9.2%). . . . From English Summary.

656. BUDOHOSKA, WANDA. Wpływ kierunku reprodukcji na transfer obserwowany przy uczeniu się materiału słownego. (The influence of the reproduction method on the transfer of training observed in the case of the serial method of study.) Psychol. Wych., 1960, 3, 176-183. Two experiments were carried out to test the relation between transfer in studying a series of nonsense syllables arranged in a sequence and the development of interserial associations. 12 tests were made in each experiment. In each test, those under investigation learned a different series of nonsense syllables. The criterion as to whether the series had been learned was that it was twice repeated without a mistake. The development of interserial associations was examined with the help of the reproduction method. Directly after the first objective had been achieved, those under investigation had to reproduce the series they had learned, either beginning with the next syllable or in the reverse order. The number of backward associations was measured on the basis of the correct reproductions in the reverse order, the number of forward associations—by means of establishing the number of correct reproductions in the forward direction. It was found that, together with the observed transfer during the time the subject learned the next series of nonsense syllables, a drop could be noticed in the quantity of reverse associations. Simultaneously, there was an increase in the number of forward associations between the elements of the series learned. The creation of conditions favoring reverse associations by means of a reproduction in reverse order of series already learned, causes a decrease in the transfer. —English Summary.

657. COOPERSMITH, STANLEY. (Wesleyan Univer., Middletown, Conn.) **Self-esteem and need achievement as determinants of selective recall and repetition.** J. abnorm. soc. Psychol., 1960, 60, 310-317. This study investigates the relationship between self-esteem and the recall and repetition of success and failure experiences. Four groups, of 12 Ss each, were selected on the basis of their self-evaluative responses and an evaluation of their self-esteem behaviors. The combinations of these two variables, at their extremes, yielded significantly different patterns on such variables as achievement, ideal self, and sociometric status, and apparently represent distinct types of self-esteem. Each S was given a series of six pairs of tasks in an achievement oriented situation. The S failed one of each pair of tasks and succeeded on the other. The tasks were followed by four story completions which had been found to elicit n Achievement. Recall was then obtained, after which the S was offered an opportunity to repeat either the success or failure variation of each task. The data were analyzed both in terms of the four groups differing in self-esteem and by a correlational analysis to determine which variables were related to recall and repetition. All groups recalled more successes, and none of the independent variables was significantly related to recall. Groups in which self-rated self-esteem was discrepant from behavior ratings tended to repeat failures; those in which the two measures agreed tended to repeat successes. An index of agreement between self-rated self-esteem and behavioral self-esteem and n Achievement were the variables most significantly related to repetition. Analysis of the need achievement scores indicated differences between the self-esteem types in positive, negative, and general categories as well as subcategory responses, although none of these were related to the experimental behaviors. It is proposed that two factors are necessary for the recall and repetition of failure. These are the ability to tolerate failure and the motivation and striving to overcome its effects. —Author's Summary.

658. CRANDALL, VAUGHN J., & RABSON, ALICE. (Fels Research Inst., Yellow Springs, Ohio) **Children's repetition choices in an intellectual achievement situation following success and failure.** J. genet. Psychol., 1960, 97, 161-168. The present study was concerned with age, sex, and personality differences associated with young children's repetition choices following success and failure in an intellectual achievement situation. Age differences were found. In addition, marked sex differences were obtained; boys preferred returning to, and attempting to master previously failed tasks while girls were more apt to prefer repeating previously successful experiences. The difference was not evident at nursery school age but was clearly present by early

grade school. By early grade school boys were found to be less dependent on peers and adults for help and approval than girls, and were less ready to withdraw from threatening situations. Relationships between experimental and social behavior data were discussed. —From Authors' Summary.

659. CRATTY, BRYANT J. A comparison of fathers and sons in physical ability. Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, **31**, 12-15. In this study, physical ability tests were compared for 24 pairs of fathers and sons who attended Pomona College from 1925 to 1959. The means of the fathers significantly exceeded the means of their sons in number of chins, distance in fence-vault, and time in 100-yard dash; significance was beyond the .05 level. The difference between the standing broad jump means was slight and insignificant. The correlation between father and son standing broad jump distances was .865; for the 100-yard dash, the correlation was .595. The other correlation, while positive, was low. —H. H. Clarke.

660. DEMANGEON, M. Les cahiers E C 11 et E C 11/2. (The test booklets E C 11 and E C 11-2.) BINOP, 1960, **16**, 43-53. Intercorrelations and factor analyses of test results for 306 boys and 268 girls are reported. These tests for 11-year-old students included a number of items in each of three areas: verbal (proverbs, sentence completion, etc.); numerical (operations, numerical series, etc.); and spatial (blocks, opposite figures, etc.). —S. G. Vandenberg.

661. DENNIS, WAYNE. (Brooklyn Coll., N.Y.) **Arab and United States children: some psychological comparisons.** Trans. N. Y. Acad. Sci., 1960, **22**, 589-605. "The pervasiveness of religious ideas in everyday thinking, which probably once existed among Jews, Christians, and Moslems has largely disappeared in the Middle East. Today it exists among Bedouins and probably among a few other ultraconservative groups, but it is not common among Middle Eastern urban populations. The decrease in religious preoccupation in the Middle East may not be due exclusively to Western influences. Hedonism, on the other hand, is highest where westernization is highest. Benevolence and malevolence seem not to be fundamentally related to westernization. The most westernized Arab cities, Cairo and Beirut, and the most educated citizens, college students, are as high in malevolence as are Bedouins. Education and westernization per se seem not to reduce hostility."

662. DENNIS, WAYNE. (Brooklyn Coll., N.Y.) **The human figure drawings of Bedouins.** J. soc. Psychol., 1960, **52**, 209-219. It was proposed that human figure drawings must necessarily be based upon cultural traditions in respect to art forms and manual skills. The human figure drawings of Bedouins have been examined from this point of view. Bedouins have very little exposure to realistic art and almost no experience in producing realistic drawings. They do, however, see and make non-representational decorations which are low in detail, geometric in form, simple and small. These decorations consist of surfaces bounded by straight or curved lines and often are shaded or colored. Bedouin drawings of the human figure were found to conform in several respects with their traditional art. They are poor in detail, earning a mean Goodenough IQ of only 50 to 55. The drawings are small, averaging only two inches in height. They are made up largely of straight lines and darkened surfaces. Whether Bedouin drawings reflect Bedouin personality has been discussed. While the present data do not provide a definitive solution to this problem, they suggest a negative answer. —Author's Summary.

663. DRAGUNS, JURIS G. (Rochester State Hosp., New York), & **MULTARI, GIUSEPPE.** **Recognition of perceptually ambiguous stimuli in grade school children.** Child Developm., 1961, **32**, 541-550. Groups of 15 boys and 15 girls at each of the following grade levels: 1st, 3rd, 5th, and 7th, were shown several series of pictures, each of which represented a simple object at a different degree of photographic blurring. The point on the progression from indefiniteness to clarity at which Ss made a meaningful structuring response constituted the principal experimental measure. The number of correct and erroneous recognitions among such responses was also computed. Small but consistent differences showed that at the higher grade and/or

age levels more cues were accumulated before judgments were voiced and that fewer errors were made. These results were presented within the context of "decision location" measures of intolerance of ambiguity. The possible relevance of present findings within an ontogenetic and a microgenetic framework was discussed, with particular reference to the theoretical formulations by Piaget and Werner. A comparison of the data obtained with the performance of aged persons and of anxious individuals on related tasks was attempted and certain parallels, as well as differences, were noted. —Authors' Abstract.

664. ELKIND, DAVID. (Univer. Calif. Sch. Med., Los Angeles) **Quantity conceptions in junior and senior high school students.** *Child Developm.*, 1961, **32**, 551-560. 469 junior and senior high school students were tested for their conceptions of mass, weight, and volume. Results showed: (a) of the students tested, 87% had attained abstract conceptions of mass and weight, but only 47% had attained an abstract conception of volume; (b) the percentage of students having an abstract volume conception increased significantly between the ages of 12 and 18; (c) a significantly higher percentage of boys than girls attained an abstract conception of volume; (d) there was a low but positive correlation of IQ with attainment of the volume conception. The results of the study were interpreted within the framework of Piaget's genetic theory of intelligence. According to this theory, the operational and structural readiness for the attainment of the volume conception appears just at the onset of formal operations and the adoption of adult roles. These two events produce an attenuation of interest and opportunities for spontaneously attaining quantity conceptions whose formation is now dependent upon the particular role the young person adopts. This conclusion was found to be consistent with the relations of age, sex, and IQ to the attainment of an abstract conception of volume. —Author's Summary.

665. ERON, LEONARD D. (Mental Hlth Res. Center, Hudson, N.Y.), BANTA, THOMAS J., WALKER, LEOPOLD O., & LAULICHT, JEROME H. **Comparison of data obtained from mothers and fathers on childrearing practices and their relation to child aggression.** *Child Developm.*, 1961, **32**, 457-472. 60 subjects were selected out of a pool of 158 children on the basis of scores on an aggression sociometric administered in their classrooms. All of the mothers and 50 of the 58 available fathers of these children were then independently interviewed to gain information on a number of presumed psychological and social antecedents to aggressive behavior. It was found that mothers and fathers did not agree to an appreciable degree in rating either their children's behavior or their interactions with their children. Even on those variables where agreement between mother and father was moderately high, the relationship to other variables was not the same for the two groups of parents. There was a consistent shrinkage in size of coefficient when proceeding from correlations between predictor and criterion which were both obtained from the same parent to correlations when the predictor was obtained from one and the criterion from the other. When an outside, independently obtained criterion was used, very often the father's scores related more adequately than did the mother's scores. The most meaningful and theoretically interesting relationships were found when predicting from a combined mother and father score to the independent criterion. —Authors' Abstract.

666. ERVIN, SUSAN M. (Univer. of Calif., Berkeley), & FOSTER, GARRETT. **The development of meaning in children's descriptive terms.** *J. abnorm. soc. Psychol.*, 1960, **61**, 271-275. The physical dimensions of size, weight, and strength are empirically correlated. If the correlation delays discrimination of these attributes as referents for descriptive terms then younger children should more often use incorrect terms to describe differences between objects. The terms Good, Pretty, Clean, and Happy should also be used as synonyms prior to differentiation. A set of materials was prepared in which size, weight, and strength were independently varied in pairs of objects. First-grade children more often than sixth graders said that the pairs of objects differed on other dimensions in addition to the attribute actually contrasted. In a set of pictures of faces, over half of the youngest children treated Good, Pretty,

and Happy as interchangeable synonyms. The proportion dropped markedly with age. The more easily identified traits, such as the referents of Big and Clean, were least often confused with other attributes. The results are interpreted as showing that attributes which have metaphorical and connotative links in adult usage, may be denotatively confused at first. The factors found by Osgood on the semantic differential studies of verbal meaning may actually be the referents for several terms used as synonyms, prior to differentiation of finer distinctions between attributes. —Authors' Summary.

667. ESCALONA, SIBYLLE K. (Albert Einstein Coll. Med., New York City), & **MORIARTY, ALICE.** **Prediction of schoolage intelligence from infant tests.** *Child Developm.*, 1961, **32**, 597-605. From a larger initial sample selected for normalcy by medical, developmental and social criteria, 58 subjects were tested first in the 3 to 33 weeks age range, and again in the 6 to 9 years age range. Infant subjects were appraised in three ways: (1) Cattell Infant Intelligence Scale, (2) Gesell Developmental Schedules, and (3) Clinical appraisal based on test performance on both instruments (but not on situational factors operating at time of testing). At schoolage subjects received the Wechsler Intelligence Scale for Children. Cases were eliminated from the sample if test reports at either age threw doubt on the validity of quantitative results. A rationale is presented for the hypothesis that in the absence of major variation from an "average expectable environment" infant tests will predict the general level of later intelligence functioning within the average and superior ranges. The Kruskal-Wallis one-way analysis of variance by ranks permitted calculation of differences in schoolage intelligence range as related to initial assessment of potential intelligence range. For subjects tested at ages 20 weeks and above, both Cattell and Gesell scores showed positive relationships to later intelligence range (p values between .10 and .20), whereas clinical appraisal predicted later intelligence range ($p = .02$). —Authors' Abstract.

668. FOMICHEVA, T. V. **Development of generalization and abstraction in the process of learning the notions of "subject" and "predicate."** *Vop. Psikhol.*, 1960, No. 3, 69-78. Tested in the experiments were the pupils of the 3rd, 4th, and 6th grade. As shown by the experimental results, the process of development is qualitative: the characteristics of "subject" and "predicate," first appearing in the mind in a visual way, grow abstract in the process of learning. In the development of abstraction and generalization three stages have been discerned: first, the pupils are unable to see the essential features of the notions in question and find their own way by consulting the lexical meaning of words irrespective of their form. Then, this tendency disappears and is replaced by a new one: the pupils try to proceed from the form of the parts of speech which have been used to denote subject and predicate in the preceding school years, i.e., from the form of the substantive in the nominative case and the verb. The third stage marks their liberation from the binding influence of these forms. —English Summary.

669. GETZELS, J. W. (Univer. of Chicago, Ill.), & **JACKSON, P. W.** **Occupational choice and cognitive functioning: career aspirations of highly intelligent and highly creative adolescents.** *J. abnorm. soc. Psychol.*, 1960, **61**, 119-123. This investigation extends an earlier series of studies of two types of gifted adolescents, those exceptionally high in IQ but not in creativity and those exceptionally high in creativity but not in IQ, by comparing their career aspirations and their cognitive functioning. It was found that (a) the two groups differ significantly in both the quantity and quality of occupational goals, the high Creatives giving a greater number of occupations and more "unusual" occupations, and (b) the two groups differ significantly in attitudes toward adult success and toward conformity to teacher preferences, the high Creatives being less concerned with conventional standards in both areas. These relationships between "intellective" and "personal-social" behavior are discussed in terms of Guilford's cognitive model of "convergence" and "divergence" in intellectual performance and Maslow's motivational model of "safety" and "growth" in social performance. —Authors' Summary.

670. GLASSOW, RUTH B., & KRUSE, PAULINE. **Motor performances of girls age 6 to 14 years.** Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, 31, 426-433. The subjects were approximately 125 girls age 6 to 14 years for whom there were performance scores for at least three consecutive years. The motor performances studied were 30-yard run, standing broad jump, and velocity in throwing a baseball. Means and standard deviations were reported for grades 1 through 8 and for ages 6 through 14 years. Reliabilities of within-day scores for the 8 grades for each test were uniformly high; only 4 of the 70 coefficients computed were below .85. Correlations of year-to-year scores and of first grade scores with those of grades 3 through 5 show that the girls tended to remain in the same relative position within the group during the elementary school years; this is especially true for the run and jump, but is less conclusive for the throw. —H. H. Clarke.

671. HAGGARD, ERNEST A. (Univer. of Illinois Coll. Med., Chicago), BREKSTAD, ARNE, & SKARD, ASE GRUDA. **On the reliability of the anamnestic interview.** J. abnorm. soc. Psychol., 1960, 61, 311-318. This research was designed to study the effects of some of the factors which may influence the reliability of anamnestic reports. From a longitudinal study, records of 19 mothers' interviews before the children were born, when they were 1 and 6 years old, and other records were used to provide 27 normalized six-point scales. The scales were selected to cover relatively short (1 to 2 year) and long (7 to 8 year) time intervals and several different types of information. When the children were between 7 and 8 years old, the mothers were given an anamnestic interview which was built around the same 27 scales. The coefficient of intraclass correlation was used to give an index of the agreement or reliability of the mothers' reports between the earlier and the anamnestic interviews. In general terms, we found that the mothers' statements during the anamnestic interview were not particularly accurate as reports of prior events. It appears that the anamnestic material did not reflect their earlier experiences and attitudes so much as their current picture of the past. In more specific terms, we found that: The length of time interval, by itself, was not meaningfully related to the reliability of the anamnestic reports. Clear differences occurred from one type of information to another. The "hard fact" data, such as the length of child at birth were recalled best of all; general wishes and attitudes (not involving anxiety) were recalled next best; and attitude scales, concerning which of the mothers were anxious at the time, were recalled least well, with reliabilities around zero. If anxiety was associated with actual experiences, however, it seemed to facilitate the accurate recall of those experiences. . . . —Authors' Summary.

672. HOLT, K. S. (Children's Hosp., Sheffield, England) **Early motor development: posturally induced variations.** J. Pediatr., 1960, 57, 571-575. Developmental examinations carried out on 82 young babies in a clinic in the United States showed advanced motor performances in the prone position in contrast to relatively poor performance in the supine position. These observations are described and it is suggested that the differences noted are due to the practice of placing the babies in the prone position to sleep, as was done by 80% of the mothers. The significance of these observations is discussed. —Author's Summary.

673. KAGAN, JEROME (Fels Res. Inst., Yellow Springs, Ohio), & LEMKIN, JUDITH. **The child's differential perception of parental attributes.** J. abnorm. soc. Psychol., 1960, 61, 440-447. A group of 67 children were individually interviewed with three different methods to obtain information on perception of the parents with respect to nurturance, punitiveness, source of fear, and competence. . . . The results suggested the following conclusions: On all three methods the fathers were seen as more fear arousing, more competent, and more punitive than mothers. Mothers were seen as "nicer" and more likely to give presents. This result held for both sexes. There were a few sex differences. Boys and girls chose the same sex parent as the model they wished to emulate and the parent they "liked the best." They chose the opposite sex parent as the one who "kissed the most." Although all children labeled the father as punitive and mother as nurturant, the girls, in comparison with the boys,

labeled the father as both more punitive and more affectionate. . . . The direct questions elicited significantly more evasive answers than the indirect questions. . . . Girls stated a desire to be like the mother but perceived the father as wiser and stronger. . . . The results supported both previous research in this area and Parsons' hypothesis regarding the differentiation of parental roles. The developmental implication of these results for Osgood's meaning factors was discussed. —From Authors' Summary.

674. KALININA, L. G. On the role of words in carrying out simple actions by children in the second year of life. *Vop. Psikhol.*, 1960, No. 4, 93-102. The investigation described has shown that the role of verbal instruction in the regulation of simple acts varies throughout the second year of child's life. In the establishment of the mutual operation of the two signal systems, rather definite stages can be discerned. The factual material obtained by us indicates that the second year of life is the period when the interrelationship of the second signal system with the first one is established, even though their functional unity, especially with the children up to one year and four or five months of age, can often be disturbed. In using word as a means of action regulation, the instruction given to the child (especially, if the latter finds difficulty in fulfilling his task) should be first of all aimed at bringing forth an orienting reaction to the object and then at the method for dealing with this object. In teaching children of this age it is necessary, along with giving complete instructions, to break them into separate components (step-by-step dictation). Also very important is to denote by word, while the child is fulfilling his task, individual movements and action links as well as the total thing it has done. —English Summary.

675. KELLIHER, M. S. A report on the Kraus-Weber Test in East Pakistan. *Res. Quart. Amer. Ass. Hlth phys. Educ. Rec.*, 1960, 31, 34-42. A total of 2325 East Pakistan male and female school children were given the Kraus-Weber Test of Minimum Muscular Fitness. Comparison with the data from the original Kraus-Hirshland report showed that the Pakistani children had a greater failure percentage than European and a smaller percentage than American children; however, some American samples by other investigators have had superior results. For the Pakistan children, girls at all class levels had a higher percentage than did the boys; there was a greater percentage of failures among younger than among older boys. Abdominal weakness was most pronounced among both boys and girls. Failures on the flexibility (toe-touch) test were much lower than found in this country. —H. H. Clarke.

676. KONISHI, TERUO. (Kamo Mental Hosp., Hyogo) On the development of language in infants. *Jap. J. Child Psychiat.*, 1960, 1, 62-74. From the standpoint of a psychiatrist an attempt has been made to study the development of language in five infants, three male and two female, from their birth up to the age of two years. The results obtained are as follows: (1) Through the process of their pronunciation development a certain tendency was observed, in which firstly vowels differentiated from the babbling and then consonants did. (2) Similar percentage of ten parts of speech was found in the vocabulary of the five infants. (3) From 50% to 60% of their vocabulary were mostly nouns related to their egocentric living. Generally, modifier was undeveloped and conjunction was poor. (4) The parts of speech which are easily lost in Japanese agrammatism appear later than others in the process of the language development. (5) Most of the sentences composed of two or three words which they uttered were of a telegram style. A few hypotax and paragrammatic expressions were observed in the age of multi-word sentences. (6) The changes of phoneme in the infants were entirely similar to that in the Japanese language, especially with the alternation of phonemes in Japanese dialects and motor aphasia. The skipping of the head consonant of syllables, which is against standard phoneme changes in the Japanese language, was observed in all five cases. After all, the development of language in infants is not quantitative increase, but qualitative one according to the growth of personality. And the above facts may indicate that the study of infantile language is one of the most important problems in the linguistic study of aphasia. —English Abstract.

677. LEVIN, HARRY (Cornell Univer., Ithaca, N.Y.), BALDWIN, ALFRED L., GALLWEY, MARY, & PAIVIO, ALLAN. **Audience stress, personality, and speech.** *J. abnorm. soc. Psychol.*, 1960, **61**, 469-473. This study was designed to test the effects of a situational factor—the presence or absence of an audience—and two personality variables—exhibitionism and self-consciousness—on the length of speech and on the number of errors in speaking. 48 children, aged 10 to 12 years, told two stories to the experimenter alone and two to an audience of six adults. The story beginnings were given to the subjects. The findings were: (1) Almost every subject told a longer story in the private compared to the audience situation. (2) Highly exhibitionistic children were least influenced in this respect whereas self-conscious children reduced the length of their stories drastically before the six observers. (3) Children who were both highly exhibitionistic and self-conscious made the most speech errors. (4) This finding was magnified under the audience condition. —Authors' Summary.

678. LIAMINA, G. M. **Development of speech understanding in children of the second year of life.** *Vop. Psikhol.*, 1960, No. 3, 106-121. The investigation was conducted on 32 healthy children. As has been found, in children between 1 and 2 years of age a connection between an object and the word by which it is denoted is established rather quickly. However, as soon as orientation conditions grow more complicated and differentiation of the object named becomes more difficult, this connection is marked by unstableness and weakness. This has been observed in 20- to 22-month-old children while selecting objects (whose names had been learned) from among a multitude of other objects by differentiating between the objects with similarly sounding names and by recognizing their images. In the second year of life the ability of generalization starts to develop. However, recognition of objects by color, size, or shape from similar objects, or from their models or pictorial representations, is characterized by unstableness. The investigation results have confirmed the necessity of introducing a gradation among the objects shown with respect to their connections and interrelations. This facilitates the formation of the object-word connections and is quite indispensable for the development of generalization ability. —English Summary.

679. McCANDLESS, BOYD R. (State Univer. of Iowa, Iowa City), BILOUS, CAROLYN B., & BENNETT, HANNAH LOU. **Peer popularity and dependence on adults in preschool-age socialization.** *Child Developm.*, 1961, **32**, 511-518. The central problem of this study was to investigate "refinements" of dependency behavior as they vary by sex and affect children's relations with their peers. The authors were also interested in the relation between "general" adult-dependency and popularity. A general postulation was that girls would show more emotional dependency than boys and that emotional—but not instrumental—dependency on adults would interfere with social relations with peers. 26 Caucasian (haole) and 34 non-Caucasian (non-haole) University of Hawaii preschool children were used as subjects; 23 were boys, 32 girls. Popularity and emotional dependency were found to be negatively related, as were "total adult contacts" and popularity. This over-all index of adult dependency interfered more with girls' than with boys' popularity, although the difference between sexes was not as great as had been found in an earlier study done with University of Iowa preschoolers. Other findings indicated that mothers did not intervene more frequently in daughters' than in sons' conflicts, although girls more frequently than boys asked teachers to solve their conflicts. Girls showed more total emotional dependency than boys, although the difference became nonsignificant when "asks teacher intervention" was eliminated from the category of emotional dependence. Girls were less likely to resist conflicts and were more likely to change activity following conflict than boys. Girls initiated fewer conflicts, but engaged in almost as many as boys. There were no sex differences in instrumental or total dependency, and instrumental dependency did not interfere with popularity. There were no sex differences in total or in instrumental dependency or in popularity, whether this was judged by teachers or measured by associations during free play. —Authors' Summary.

680. MAILLARD, M., LAFARGUE, O., & MALVY, L. *Le dépistage de la dyslexie.* (Standardization of tests for dyslexia.) *BINOP*, 1959, **15**, 296-322. WISC results for 17 children with difficulties in reading and spelling are discussed in terms of the following subtests: Information, Memory for Digits, Picture Arrangement, Object Assembly and Kohs Block Design. Compared to 17 normal children the scatter of the subtests was greater for the dyslexia cases, since they performed better than the normals on similarities, picture completion, Kohs Blocks and Object Assembly but poorer on the remaining tests. —S. G. Vandenberg.

681. MALITSKAIA, M. K. *On the use of pictures to develop speech understanding in children at the end of the first and during the second year of life.* *Vop. Psikhol.*, 1960, No. 3, 122-126. The present investigation was carried on 10 healthy children aged 10 to 15 months with a view to find out the possibility of the formation at this age of word-image connections. It was found that even at the age of 12 to 13 months such connections can be formed under some conditions after a single reinforcement. The most important condition for developing these connections is the presence of an intense orienting reaction to the named image, as is the case when a new image is placed among other images whose names the child already knows. —English Summary.

682. MARCHAL, G. L. *Contribution à l'étude du sentiment esthétique III.* (Contribution to the study of esthetic judgment.) *BINOP*, 1959, **15**, 249-257. Continuing the article in *BINOP* 14 (2), the author studied the relationship of the Heymans personality questionnaire as revised by LeSenne, Berger and others to the preferences among 8 reproductions of paintings (by Matisse, Bonnard, Klee, Renoir, Lotiron, Dufy). No significant difference was found in the preferences of the various character types. —S. G. Vandenberg.

683. MARCHAL, G. L. *Contribution à l'étude du sentiment esthétique IV.* (Contribution to the study of esthetic judgments. IV.) *BINOP*, 1960, **16**, 325-336. 200 boys of 14 years were asked to choose between pairs of India ink drawings, one in each pair esthetically superior and one inferior. Frequencies of the choices are presented in detail and show that there is great uniformity of judgment, but in favor of bad drawings about as often as of good ones. There was no relation between the judgments and intelligence. In the second experiment 517 boys of 14 years of age were administered the Maitland Design Judgment Test of Graves. Low negative correlations were obtained between the score on this test and on the reasoning and visualization tests of Thurstone and with school grades. Both experiments show the absence in 14-year-olds of the artistic judgment found in adults. —S. G. Vandenberg.

684. MARSCHAK, MARIANNE. (Yale Univer., New Haven, Conn.) *A method for evaluating child-parent interaction under controlled conditions.* *J. genet. Psychol.*, 1960, **97**, 3-22. A home observation technique for measuring parent-child interaction, particularly on the dimensions of imitation and identification is described. The report is based upon the qualitative aspects of the technique as demonstrated with four families, involving sensorimotor tasks, games, and object naming sequences. Detailed illustrations of the procedure with accompanying author interpretations are provided. Suggestions for a quantitative approach using the technique are described. —F. D. Horowitz.

685. MATIUSHKIN, A. M. *An investigation of psychological laws of the process of thinking.* *Vop. Psikhol.*, 1960, No. 3, 45-56. In experimental investigations of thinking, problem-solving is often considered as an object of psychological investigation. However, this approach renders it impossible to disclose the functional relationships which underlie the laws of the process of thinking. Thinking is always a part of the subject's activities. It occurs under certain conditions which create a problem situation. Problem-solving is not an object, but rather a method of experimental investigation. The experiments described were devoted to the study of the conditions under which the process of analysis takes place and of the means employed in it. In the first part of investigation the following task was assigned: to measure the volume of a transparent glass vessel partly filled with water and corked up. To carry out this

assignment, water had to be used as a means of measuring the volume of the "unmeasured" portions of the vessel. By making three series of experiments, it was made possible to identify three types of factors in problem conditions which had different functional meaning in the process of thinking. In the second part of the investigation, one of the factors was specially considered, namely, the knowledge possessed by the subject, which enters into the process of thinking as a means of analyzing the new problem conditions. —English Summary.

686. MATTHEWS, CHARLES G. (Fort Wayne State Sch., Indiana), & **LEVY, LEON H.** **Response sets and manifest anxiety scores in a retarded population.** *Child Developm.*, 1961, **32**, 577-584. In an attempt to assess the applicability of the Children's Form of the Manifest Anxiety Scale to a mentally retarded population, the test was administered to 30 institutionalized, mentally retarded males on a test-retest basis together with a digit span test and a specially constructed response set scale. CMAS scores were found to be stable over time, but significantly higher than those for the sixth grade boys used in its standardization. No correlation was found between CMAS and digit span, but significant correlations were found with the response set scale. On the basis of these data, as well as an item analysis, it was concluded that the scores of retardates on the CMAS are strongly influenced by response sets, as well as situational and capacity variables, and that the test, therefore, is not appropriate for a retarded, institutionalized population. —Authors' Summary.

687. MEDINNUS, GENE R. (San Jose State Coll., Calif.) **Q-sort descriptions of five-year-old children by their parents.** *Child Developm.*, 1961, **32**, 473-489. The purpose of the study was to evaluate the use of the Q-sort technique with parents of preschool children and to explore the extent of interparent Q-sort agreement in the area of parental perception of child behavior. The sample consisted of 76 parents, 19 sets of parents of 5-year-old boys and 19 sets of parents of 5-year-old girls. The mean IQ of the children was 111.6. Both parents sorted independently two pools of 42 items each descriptive of the behavior of 5-year-olds. One pool contained only positive items (plus pool) and one contained negative items only (minus pool). The items were sorted into seven piles, with six items per pile, ranging from "most characteristic of my child" to "least characteristic of my child." In addition to this "real" sort, the items were sorted to describe the "ideal" 5-year-old. Product-moment r 's were computed between each set of parents on the two sorts (interparent agreement) and between each parent's two sorts (intraparent agreement). Reliability figures were obtained from 10 sets of parents who resorted the items with a 4-month interval between sorts. Results were as follows: (1) Interparent agreement. Mean r 's were .40 and .43 for plus and minus pools, respectively, on real sort. For ideal sort mean r 's of .28 and .30 for plus and minus pools, respectively, were obtained. (2) Intraparent agreement. Mothers mean r 's on plus and minus pools were .27 and .36, respectively. Fathers mean r 's on plus and minus pools were .26 and .26, respectively. (3) Reliability coefficients for the various sorts clustered about .55. —Author's Abstract.

688. MERRIMAN, J. BURTON. **Relationship of personality traits to motor ability.** *Res. Quart. Amer. Ass. Hlth phys. Educ. Rec.*, 1960, **31**, 163-173. In this study, the California Psychological Inventory and the Phillips JCR Test were administered to 808 high school boys. Boys with high JCR scores (composed of a jump, chins, and a run) scored significantly higher than boys with low JCR scores on the poise, ascendancy, intellectual, and interest modes parts of the CPI. Few significant differences were found between mean CPI scores when athletes and non-athletes were matched according to motor ability. —H. H. Clarke.

689. MILHAUD, F., & PACAUD, S. **La structure des fonctions psychologiques et leur groupement en constellations à la lumière d'une nouvelle méthode d'analyse.** (The structure of psychological functions and their grouping in constellations in the light of a new method of analysis.) *Biotypologie*, 1959, **20**, 56-71. The authors propose two indices of association instead of one correlation coefficient: one to indicate the relation between aptitudes, the other between inaptitudes. The details of this

technique have been presented elsewhere (references are given). This article reports on a study of 15 tests given to 1000 subjects. The constellations of aptitudes and inaptitudes found differed considerably. There were three aptitude constellations and two inaptitude constellations. A comparison with the correlation coefficient shows that its value tends to be higher than the relation between aptitudes but lower than the relation between inaptitudes. —S. G. Vandenberg.

690. MOHR, DOROTHY R. *The contributions of physical activity to skill learning.* Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, 31, 321-350. A total of 218 published reports were reviewed by this author in considering the contributions of physical activity to skill learning. Among the conclusions drawn are the following: Athletes are generally superior to non-athletes in motor ability, reaction time, eye-hand coordination, steadiness, and jumping ability; most of the psychological research indicates that distribution practice is superior to massed practice in motor learning; skill learning results from specific practice of the particular skill; findings with respect to the relative superiority of whole, part, progressive-part, and other methods of teaching skills are variable; and weight training will increase the ability to perform vertical and broad jumps, running speed, speed of movement, and motor coordination. —H. H. Clarke.

691. NATADZE, R. G. *A factor in the constancy of size perception.* Vop Psikh., 1960, No. 3, 24-32. Described in the present paper is an experimental apparatus designed by the author to study the constancy of size perception, and the results of several sets of experiments which have shown that the broader and more discriminate is the perception of the space situation in which an object is given, the more constant is the perception of size. If the object is perceived in a very limited field of vision and no space situation is available, size perception is characterized by inconstancy which is proportional to the extent of the "isolation" of the object perceived in the mind of the subject. —English Summary.

692. NØRSTEBØ, SIGURD. *Stereotype-studier.* Pedag. Forsk., 1959, No. 3, 146-175. The purpose of this investigation was to make out (1) what stereotypes 800 elementary school children had of the Swedes, the Germans, the English, the Russians, the Americans, the Norwegians, and (2) what background these stereotypes had in form of personal contacts, or information from text-books, newspapers and common talk. The children were from 11 to 14 years, 200 from each of the four last grades, the number of boys and girls from each grade being equal. The method was a modified form of the Katz-Braly technique. The word-list of the Buchanan-Cantril-study was augmented with 18 words, and in addition an inquiry form was worked out, including questions about the children's contacts with and knowledge about the five foreign nations. There were differences in the stereotypes of each age-group, the development seems to be influenced by the children's ability of thinking and their amount of knowledge about foreign countries. In the girls' stereotypes some words were more common than in the boys', such words were "kind," "generous," "funny," and "stupid." The boys had their favorite words as well—"sportsmen," "brave," "good sailors," and "intelligent." . . . From English Summary.

693. ØSTBY, HANS. *Forsøk med CMAS.* Pedag. Forsk., 1960, No. 3, 139-155. CMAS, Children's Manifest Anxiety Scale, which is adapted from Taylor's adult form by Castaneda et al. was translated into Norwegian. Responses were collected from 10 sixth grade elementary school classes (average age 12 to 13 years) comprising 157 pupils who gave answers to the scale items twice, one week apart. The chief results are as follows: (1) In terms of magnitude anxiety score M's were not noticeably different from earlier studies. (2) In contradiction to earlier results there were no significant differences between the responses of the girls and those of the boys. (3) Zero correlation was found between the results of the A-scale and the L-scale. (4) Reliability of the A-scale by retesting after a week was $r = .94$, and for the L-scale $r = .69$. (5) χ^2 -test between the two 25% extremes showed for most items $p < .001$. (6) The correlation between anxiety scores and IQ was $r = -.43$ and between anxiety scores and arithmetical reasoning $r = -.51$. —English Summary.

694. PATEL, AMBALAL S. (Univer. of Baroda, India), & GORDON, JESSE E. **Some personal and situational determinants of yielding to influence.** *J. abnorm. soc. Psychol.*, 1960, **61**, 411-418. An experiment was conducted using boys and girls [$N = 72$] in Grades 10, 11, and 12 to explore factors associated with the acceptance of suggestions in a situation in which Ss were given the option of accepting or not accepting the suggestion, and in which task difficulty was varied independently of age-grade status. The variables explored were age-grade status, sex of S, difficulty level (or ambiguity) of the task on which S was to perform, and prestige level of the suggestion source. . . . Results were as follows: (1) Acceptance of suggestions was higher in girls than in boys. (2) High prestige suggestions were accepted more frequently than were those ascribed to a low prestige source. (3) Suggestions were accepted more frequently on difficult than on easy items. (4) Twelfth grade Ss accepted significantly fewer suggestions than did tenth or eleventh grade Ss, who did not differ significantly from each other, except when high prestige groups were excluded from analysis. When suggestion source was of low prestige, the three grades differed significantly from each other, in the direction of decreasing acceptance of suggestions. (5) Eleventh grade Ss accepted many more high prestige suggestions than did tenth or twelfth grade Ss, suggesting that seniors are more prestigious to eleventh graders than eleventh graders are to tenth graders, or college freshmen to seniors. (6) The differences between boys and girls in acceptance of suggestions diminished with increasing age-grade status, where the prestige level of the suggestion source was low, but girls remained higher than boys in the acceptance of high prestige suggestions. Boys in the senior year were more resistant to high than to low prestige suggestions, while girls remained more responsive to high prestige. (7) In the twelfth grade, high prestige suggestions had a greater effect on difficult items than it did on easy items. Resistance to high prestige suggestions could be completely overcome in this group by high item difficulty. —From Authors' Summary.

695. PELOSSE, J. L. **Cadence spontanée de la marche en milieu urbain, étude comparative.** (Spontaneous rhythm in walking in an urban environment, a comparative study.) *Biotypologie*, 1959, **20**, 72-77. A small movie camera was used to record natural walking movements of 136 persons in 5 localities (Paris, Hamburg, Copenhagen, Tromsø, and Mannheim). Means and standard deviations are presented of the number of steps per second in the 5 cities. The Parisians took the most steps, the Danes the fewest, with Mannheim, Hamburg and Tromsø in between. All samples took more steps per second than the frequency recommended in two experimental physiological studies. —S. G. Vandenberg.

696. PINILLOS, JOSE LUIS. (Dept. Exp. Psychol., C.S.I.C., Madrid) **Preferencias nacionales de varios grupos universitarios españoles.** (National preferences of several groups of Spanish university students.) *Rev. Psychol. gen. Aplicada*, 1960, **15**, 342-361. The subjects of this study were 215 university students, members of six different academic classes, most of whom were in their late teens or early twenties. These subjects rated in numerical order of preference various national and ethnic groups presented in alphabetical order. Age, sex, and national origin of the subjects, but not names, were obtained. Although the students in various classes differed in background, the intercorrelations of the classes in expressed preferences were high. The hierarchy of preference established in this study is about the same as that obtained in earlier studies made in North America and more recent ones in Canada, namely: Western Europeans, North and South Americans, Eastern Europeans, Jews, and Colored peoples. An interesting feature of the findings was that specific countries in Spanish America were ranked lower and closer to the bottom of the preference scale than Spanish America as a whole, which ranked high. —F. M. Dwyer.

697. PROKINA, N. F. **Development of stable forms of behavior in school-children of 1st grade.** *Vop. Psikhol.*, 1960, No. 3, 64-68. The author's aim was to find favorable conditions for learning certain behavior, viz., an ability orderly to line up at the entrance of the classroom. In the course of investigation, several sets of experiments were carried out, some of them involving change of motivation and of the

methods for organizing the child behavior. 1st grade school-children were tested. As the investigation results have shown, certain conditions should be present to enable children to learn orderly to line up. First of all, a motive for mastering the corresponding type of behavior is to be provided. Apart from correct motivation, the child activities should be properly organized, i.e., the behavior to be learned should be broken up into elements; the child should be instructed to relate the corresponding behavior elements with the time intervals allotted to them. Only by meeting the above requirements was it possible first to stabilize and then to reinforce organized behavior. —English Summary.

698. RAND, PER. Anxiety in connection with school performance: III. Try-out of a Norwegian translation of the Test Anxiety Questionnaire for Children. *Pedag. Forsk.*, 1960, No. 4, 178-199. "As part of a larger project the Test Anxiety Questionnaire for Children was translated into Norwegian by the author, and given to subjects taking part in the larger investigation."

699. RAO, KUNAPULI U. (Govt. Training Coll., Adnhra Pradesh, India), & RUSSELL, ROGER W. Effects of stress on goal setting behavior. *J. abnorm. soc. Psychol.*, 1960, **61**, 380-388. The experiment was designed to test the following hypotheses: "(a) The goal setting process should lead to stated levels of aspiration. . . . consistent with performance and remain relatively stable as long as performance is stable. . . . (b) Stressing the behavior system by introducing repeated failure to achieve stated goals should upset the stability of the prestress levels of aspiration and lead toward . . . new levels. . . . (c) There should be an inverse relation between duration of exposure to stress and level of aspiration such that the level decreases as the number of stress trials increases. . . . (d) Return to prestress experimental conditions should be reflected in shifts of stated levels of aspiration in the direction of their original levels of stability." 160 adolescent boys from a secondary technical school in England were divided into four experimental and four control groups. The groups were matched on age, socioeconomic background, past academic success and failure, intelligence, and initial performance to the dependent variables. The experiment was conducted in four phases always presented in the same temporal order: (a) Practice trials; (b) Prestress trials; (c) Stress trials—two independent variables introduced to experimental groups—presence or absence of stress trials and number of stress trials (10, 20, 30, 40); and (d) Recovery—all groups returned to a series of prestress trials. The apparatus used was a modified Rotter Aspiration Board. Tests of statistical significance were applied. The main results were consistent with the hypotheses. —H. D. Holloway.

700. RUEBUSH, BRITTON K. (Yale Univer., New Haven, Conn.) Interfering and facilitating effects of test anxiety. *J. abnorm. soc. Psychol.*, 1960, **60**, 205-211. Two anxiety scales and an intelligence test were administered to 280 sixth-grade boys. 48 Ss, divided into 12 groups in a 2 (high and low anxious) \times 3 (high, medium, and low IQ) \times 2 (order of administration of easy and difficult items) design, were individually administered an embedded figures task. The task items ranged from extremely easy to extremely difficult. Three scores were derived from the criterion task for each S: a latency score, number of figures solved, and a cautiousness index. Three predictions were made: (a) highly cautious Ss do better than low cautious Ss on the criterion task; (b) HA Ss obtain higher cautiousness scores than LA Ss; (c) the performance of HA Ss on the criterion task is superior to that of the LA Ss. The first two predictions were confirmed. The third prediction was confirmed for Ss at the low and medium IQ levels. The analysis of variance of the latency scores yielded a significant Anxiety \times linear IQ interaction which resulted from the fact that the performance of the HA was superior to that of the LA at the low and middle levels of IQ and inferior at the high IQ level. The results of the analysis of the cautiousness scores were interpreted as supporting the thesis that the effect of anxiety on performance, whether facilitating or interfering, is mediated primarily by defensive reactions to the anxiety. It was also concluded that the differential effects of anxiety upon performance may vary systematically depending upon both intelligence level and type of task and instructions. —Author's Summary.

701. RYCHLAK, JOSEPH F. (Washington State Univ., Pullman) **Recalled dream themes and personality.** *J. abnorm. soc. Psychol.*, 1960, **60**, 140-143. Purpose was "... to test the hypothesis that persons dream in a patterned fashion and that such uniformities can be related to objective test findings, and possibly to sociometric ratings." The sample consisted of two classrooms, a 5th ($N = 30$) and an 8th grade ($N = 29$). The mean CAs were 10-9 and 14-1, respectively. Sexes were approximately evenly divided within the two classrooms. Primarily, Ss were from the middle-class stratum. Three principal response criterion scores were obtained; (a) Ss reported their dreams in writing on the same day of each week during a three-month period. Each dream was scored for three major themes, Affiliative, Reward, and Tension. Two judges independently rated a random sample of 32 dreams; they reached a 94% level of agreement. (b) Cattell's Junior Personality Quiz and (c) a sociometric test were administered. Various tests of significance and correlations were computed. The author stated: "The hypothesis ... has received some verification. Manifest dream themes have been shown to discriminate fairly well between Ss and to relate to personality and sociometric measurements." —H. D. Holloway.

702. SCHAEFER, EARL S. (Nat'l Inst. Ment. Hlth, Bethesda, Md.), & **BAYLEY, NANCY.** **Consistency of maternal behavior from infancy to preadolescence.** *J. abnorm. soc. Psychol.*, 1960, **61**, 1-6. An interest in the influence of maternal behavior upon development of the child suggested two hypotheses: (1) A mother's behavior with her infant is significantly related to her behavior with the same child at preadolescence. (2) Data on a mother's behavior with her child collected from an interview are significantly related to data collected from direct observation of mother-child interaction. Observational data collected during the first three years of the child's life in testing sessions at the University of California Institute of Child Welfare and interview data collected in the home between the child's age of 9 to 14 years permitted a test that confounded the two hypotheses. The finding of a significant correlation between scores on the two sets of data for a dimension of Love versus Hostility led to acceptance of both hypotheses for that dimension. The finding of an insignificant, although positive, correlation between scores for the dimension of Autonomy versus Control could not be definitely interpreted since this result might be due either to low validity for either the observation or interview data or both, or to true inconsistency in maternal behavior for this dimension. It was found that early ratings of poor physical health of the mother, subjective financial stress, and negative emotional states had significant negative correlations with later ratings of positiveness of mother-child interaction. —Authors' Summary.

703. SEMENOVA, A. P. **Figurative speech as used by school children.** *Vop. Psikhol.*, 1960, No. 6, 87-92. The amount of figurative expressions in the written works of school children of the 6th, 8th, and 10th grade is insignificant. This can be accounted for by the fact that figurative speech requires a rather complicated psychological background. First of all it requires a certain level of individualized consciousness and more or less considerable maturity of the school-child's emotional life. Also very important is the extent and variety of knowledge which provides material for figurative speech. Further, figurative speech has thinking activity of different complexity and originality for its basis. Accordingly, in the experiments made all figurative expressions were subdivided into simple, compound, and complex. It was found that simple expressions were considerable in number for all the grades, the maximum being reached in the 6th grade, while the amount of compound and complex expressions slowly goes up from the 6th to the 10th grade. Complexity and expressiveness do not necessarily go side by side. However, the more complex is the image used by the child, the greater is the chance of its being distinguished by expressiveness. —English Summary.

704. SIEGEL, PAUL S., & FOSHEE, JAMES G. (Univ. of Alabama, Tuscaloosa) **Molar variability in the mentally defective.** *J. abnorm. soc. Psychol.*, 1960, **61**, 141-143. The purpose was to ascertain differences between mentally defective and

normal Ss using variability of their responses to a "switch-choosing task" as the criterion. 64 institutionalized mental defectives, ranging in CA from 11 to 46 years (Mdn = 28) and in MA from 4-0 to 10-2 years (Mean = 6-7) were compared with a control group of normals. The latter group was composed of 64 Ss selected jointly from an orphanage and the demonstration school of a college. CAs of the control group ranged from 5-10 to 9-8 (Mdn = 8-4), and MAs ranged from 5-0 to 12-2 (Mean = 8-8). Sexes were divided equally within the two groups. The task required S to extinguish a light by choosing among four switches; each S underwent 33 trials successively. The experimental design incorporated four factors: defective-normals; male-female; high-low motivation (threat and no-threat of shock); and long-short intertrial delay (2 sec.-30 sec.). An index of variability was used as the criterion score and a test of statistical significance applied to the results. The authors concluded that the mentally defective group displayed significantly less variability than the control group. The finding was discussed in a context of disinhibition theory. —H. D. Hollo-way.

705. SOLLEY, CHARLES M., & ENGEL, MARY. (Menninger Foundation, Topeka, Kansas) **Perceptual autism in children: the effects of reward, punishment, and neutral conditions upon perceptual learning.** *J. genet. Psychol.*, 1960, **97**, 77-91. The authors define autism as "the movement of cognitive responses in the direction of need satisfaction." Autism was studied in 54 subjects, involving 30 subjects between 5 and 8 years and 24 subjects between 9 and 12 years. Two line drawing facial profiles, which could be made to coincide so that the resultant figure was a circle, were used. Three training procedures were used: reward-neutral—the appearance of one face was rewarded by nickels, the appearance of the other resulted in no action; reward-punishment—the appearance of one face was rewarded by nickels, the appearance of the other resulted in the withdrawal of nickels; punishment-neutral—the appearance of one face resulted in the withdrawal of nickels, the other resulted in no action. Testing for all subjects involved the presentation of the coincided profiles. Subjects were asked to point which way the face was looking—or to identify "figure." Reward-neutral subjects indicated the rewarded profile as figure significantly more frequently than indicating the neutral profile as figure. Reward-punishment subjects tended to report the rewarded profile as figure, but not significantly so. Punishment-neutral subjects differed by age, with younger subjects reporting the neutral face as figure but older subjects reporting the rewarded face as figure. A second experiment reporting the effects of experimenter interaction is included and results are discussed. —F. D. Horowitz.

706. STOTT, D. H. (Univer. of Glasgow) **Observations on retest discrepancy in mentally subnormal children.** *Brit. J. educ. Psychol.*, 1960, **30**, 211-219. Retest scores of subnormal children were examined in order to check the reliability of previous retests and to estimate to what extent the discrepancies might reflect real changes in the rate of mental development as well as errors of standardization. The discrepancies were considerably greater than those obtained from the standardization of the Binet by Terman and Merrill. The usual tendency towards increasing discrepancy with time-interval was confirmed, except for an apparent practice-effect at short intervals. The gains and losses were much more heterogeneous than could be accounted for by intra-test error. Boys lost significantly less than girls. It was concluded that the retest discrepancies might in large part be due to real variations in the rate of mental development (including such as are dependent on changes in motivation). —Author's Summary.

707. TEREKHOVA, O. P. **On the generalization of forms of analysis.** *Vop. Psikhol.*, 1960, No. 4, 83-92. The present paper deals with the problem of generalization of methods of analysis in problem solving. Four series of experiments on school-children of the 6th grade were made with some specially selected physical problems for experimental material. The results of the experiments indicated that by generalizing the conditions and solution patterns of one problem the tested sub-

jects are enabled independently to solve other (similar) problems, i.e., "to transfer" already familiar methods of analysis. In the root of this phenomenon lies the mechanism of generalization. The experiments described also made possible an identification of a number of stages in analysis generalization. A most important provision for attaining the higher stages is the recognition of essential elements in the problems and abstraction from their particularities. —English Summary.

708. WENAR, CHARLES. (Hosp. of Univer. of Pennsylvania, Philadelphia) **The reliability of mothers' histories.** *Child Developm.*, 1961, 32, 491-500. This methodological paper views the reliability of developmental histories as a function of the accuracy of the mothers' original observations, the fate of these observations with the passage of time, and the method used in obtaining the information from her. The problems involved at each of the three phases are discussed, and an attempt is made to show how, in doing the necessary methodological studies, a good deal will be learned not only about reconstructive material but also about the parent-child relationship. Finally, the factual versus the subjective approach to historical data is discussed, as well as the limitations of relying exclusively on construct validity. —Author's Abstract.

709. WOHLWILL, JOACHIM F. (Clark Univer., Worcester, Mass.) **A study of the development of the number concept by scalogram analysis.** *J. genet. Psychol.*, 1960, 97, 345-377. This investigation attempted to identify the developmental sequence involved in number conceptualization. Following a training task 72 subjects enrolled in Geneva, Switzerland schools, ranging in age from 4-0 to 7-0, were given tasks involving seven types of number items. The results of a scalogram analysis indicated the order of conceptual difficulty for the different types of items. The results are discussed in terms of the developmental process concerning number conceptualization. The scalogram analysis is adjudged a satisfactory approach for these sorts of data. —F. D. Horowitz.

710. WURTZ, KENNETH R. (Mich. State Univer., East Lansing) **Some theory and data concerning the attenuation of aggression.** *J. abnorm. soc. Psychol.*, 1960, 60, 134-136. The purpose was to test the following theoretically rooted hypothesis: "The expectation is . . . that a greater proportion of aggressive responses in doll play should be of the nonbodily injury type with doll agents than with adult doll agents." The hypothesis was tested by analyzing data obtained in prior studies reported by Sears (1951) and by Sears, Pintler, and Sears (1946). Ss were 150 children, 50 each at ages 3, 4, and 5 years; sexes were equally divided within age levels. S underwent two 20-minute doll play sessions with a standard doll family. Complete freedom of response and nonpunishment of aggressive responses were two principal conditions, thus child responses were viewed as fantasied. Aggressive responses were categorized, scored, and a quantitative "index of attenuated aggression" developed for use in tests of significance relevant to the research hypothesis. The findings supported the hypothesis. —H. D. Holloway.

711. ZUK, G. H. (St. Christopher's Hosp. for Children, Philadelphia, Pa.), MILLER, RALPH L., BARTRAM, JOHN B., & KLING, FREDERICK. **Maternal acceptance of retarded children: a questionnaire study of attitudes and religious background.** *Child Developm.*, 1961, 32, 525-540. Maternal acceptance of retarded children was explored through means of a questionnaire which tapped attitudes toward the children and religious background. A low but positive correlation was found between measures of maternal acceptance and religious background. Mothers who rated themselves more intense in religious practices tended to verbalize attitudes judged more acceptant of their retarded children. Catholic mothers rated themselves and their husbands more intense in religious practices than non-Catholic mothers and also verbalized attitudes judged more acceptant. Religious background correlated more positively with maternal acceptance when judgment of acceptance was based on attitude items involving dispositions toward discipline and overdependence. . . . —From Authors' Summary.

PSYCHIATRY AND MENTAL HYGIENE

- 712. ABRAMSON, ARTHUR S., & DELAGI, EDWARD F. The contributions of physical activity to rehabilitation.** Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, **31**, 365-375. These authors are engaged in physical medicine and rehabilitation. In their review, three forms of commonly used therapeutic procedures were evaluated. Their conclusions consisted of the following: Muscle contraction is necessary to prevent disuse atrophy of bone; muscle contraction increases blood flow in the normal individual and in the patient with occlusive arterial disease; "overloaded" muscle contraction is the most efficient in increasing muscle strength; and, as a general principle, concepts of therapy developed through investigation must replace, modify, and refine those which are empirically derived. —H. H. Clarke.
- 713. COWELL, CHARLES C. The contributions of physical activity to social development.** Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, **31**, 286-306. While the author reviewed 114 published reports pertaining to the contributions of physical activity to social development, he indicated a lack of significant definitive research in this area. The review was related to the following divisions of the broad area of social development: social development in a culture, social psychology, school and teacher as social forces, social developments, antisocial behavior, personal-social adjustment, sociometrics, activity preference, physique, and personality characteristics, social mobility, social integration, and aggression, and competition. Conclusions were not drawn, but problems for future research were presented. —H. H. Clarke.
- 714. DENNIS, WAYNE (Brooklyn Coll., N.Y.), & NAJARIAN, PERGROUHI. Infant development under environmental handicap.** Psychol. Monogr., 1957, **71**, No. 7, 1-13. This study has been concerned with the development of children in an institution in Beirut, Lebanon, called the Creche, in which "mothering" and all other forms of adult-child interaction are at a minimum because the institution is seriously understaffed. The children come to the institution shortly after birth and remain until six years of age. Contact with the mother ceases upon the child's entrance to the institution and contact with mother-substitutes is slight because the adult-child ratio is 1 to 10. Opportunity for developing infant skills through practice is very slight. In the early months the infants are swaddled. For many months the infant lies on his back, and is even fed in a supine position. He is not propped up, carried about, or provided with the means of practicing many activities. Data on behavioral development were obtained by giving the Cattell infant scale to all infants between two and 12 months of age and the Goodenough draw-a-man test, the Knox cube test, and the Porteus maze test to all children with 4½ and 6 years of age. Comparison data were available from American norms and from certain groups of Lebanese subjects. It was found that in terms of developmental quotients, the mean quotient at two months was approximately 100. Between three and twelve months the mean was 63. In the tests given at the four- and five-year level, the mean scores were roughly 90. . . . —From Authors' Summary and Conclusions.
- 715. DOWNING, ROBERT W., MOED, GEORGE, & WIGHT, BYRON W. (Children's Seashore House, Atlantic City, N.J.) Studies of physical disability: a technique for measurement of psychological effects.** Child Developm., 1961, **32**, 561-575. A version of a semantic differential was developed for the study of effects of physical disability on growth and development, self-evaluation and attitudes toward disability of both disabled and intact children, and for the test of hypotheses implied by theories of disability. Reliability, factor independence, and the range of applicability of the test for age and sex subgroups were investigated. Subjects, procedure, and measures of performance are described. The test is reliable, factors remain independent despite unique characteristics of the concepts or the subjects, and the test may be used with

boys and girls over a wide age range. Preliminary examination of group data suggest that this semantic differential may be used to assess the role of physical deviation in personality development and to investigate discriminatory attitudes toward the physically disabled. —Authors' Abstract.

716. EDENS, MARTHA (Assoc. Mental Hlth, Austin, Texas), **SMITH, BERT KRUGER, RAMSEY, M. L., & COLLINS, C. C.** **What mental health associations can do for families of the mentally ill.** *Ment. Hyg.*, 1961, **45**, 221-228. The Texas Association for Mental Health and the Hogg Foundation conducted an 8-month study to determine which of two methods of distributing the booklet "Mental Illness: A Guide for the Family" was most effective. Evaluation was by means of a meticulously prepared questionnaire. Method A consisted of handing the booklet to an accompanying relative of first admission mental hospital patients. Method B consisted of presentation to the family by the social service department of a form letter and request post card. Later a control group of 100 heads of families selected from the city directories of the two cities served by the hospitals was sent the booklet and questionnaire. Questionnaires to this group had a different explanatory paragraph. Only four of the control group replied, indicating that those who lack involvement respond poorly to an educational program of this type. No statistical difference was found in the effectiveness of the distribution as a result of methods A and B. Comments and items checked as most helpful were considered important findings of the study. —R. L. Witherspoon.

717. FERSTER, C. B. (Indiana Univer. Med. Center, Indianapolis) **Positive reinforcement and behavioral deficits of autistic children.** *Child Developm.*, 1961, **32**, 437-456. An analysis of how the basic variables governing a child's behavior suggests specific conditions under which these variables may lead to the kind of performance deficits seen in the autistic child. The analysis emphasizes the child's performance as it is changed by, and affected in, social and nonsocial environment. The analysis of the autistic child's behavioral deficits comes from the general principles of behavior, derived from a variety of species, which describe the kinds of factors that alter the frequency of any arbitrary act. The general principles of behavior applied to the specific situations, presumably present during the child's developmental period, leads to hypotheses as to specific factors in the autistic child's home life which could produce the severe changes in the frequency as well as in the form of its behavior. —Author's Abstract.

718. FISH, BARBARA. (New York Univer. Sch. Med., New York City) **The study of motor development in infancy and its relationship to psychological functioning.** *Amer. J. Psychiat.*, 1961, **117**, 1113-1118. The analysis of early postural development and locomotion can be used as one measure of the integration of central nervous system maturation in the first two years of life. Using this index, involvement of the central nervous system was found in the histories of half the children with organic brain disorder and half the children who had severe schizophrenia with defective intellectual functioning. However, there was no absolute division of children with schizophrenic or primary behavior disorders into those with and without evidence of early neurological disorder. It is suggested that there may be a spectrum of developmental disturbances and that the severity of these may be related to the difficulties some individuals experience in maintaining psychological integrity in the face of stress. —Author's Summary.

719. HEIN, FRED V., & RYAN, ALLAN J. **The contributions of physical activity to physical health.** *Res. Quart. Amer. Ass. Hlth phys. Educ. Rec.*, 1960, **31**, 263-285. In this article, pertinent clinical observations and research studies concerned with the contribution of physical activity to physical health were reviewed and appraised; a total of 118 published reports were studied. The following conclusions appear justified, as reported by these American Medical Association officials: (1) Regular exercise can play a significant role in the prevention of obesity and thereby indirectly influence the greater incidence of degenerative disease and shortened

life span associated with this condition. (2) A high level of physical activity throughout life appears to be one of the factors that act to inhibit the vascular degeneration characteristic of coronary heart disease, the most common cause of death among cardiovascular disorders. (3) Regular exercise assists in preserving the physical characteristics of youth and delaying the onset of stigmata of aging and probably exerts a favorable influence upon longevity. (4) Conditioning the body through regular exercise enables the individual to meet emergencies more effectively and so serves, in turn, to preserve health and to avoid disability and perhaps even death. —H. H. Clarke.

720. HSU, FRANCIS L. K. (Northwestern Univer.), WATROUS, BLANCHE G., & LORD, EDITH M. **Culture pattern and adolescent behavior.** *Int. J. soc. Psychiat.*, 1960/61, 7, 33-53. The Rorschach protocols of 28 Chinese boys and girls in Hawaii (aged 14 to 19) were examined and compared with those of 24 adolescents in Chicago. Differences and similarities in (1) intellectual approach, (2) fantasy, (3) emotionality, and (4) content between the Chicagoans and Hawaiians were noted and discussed. Possible reasons for the relative lack of adolescent turbulence among Chinese Americans and the relative abundance of it among white Americans were presented in terms of (1) Childhood Experiences, (2) Parental Attitudes, (3) The Role of the Peer Group, and (4) The Demands of the Wider Society. —E. B. McNeil.

721. KLEIN, DONALD C. (Human Relations Service, Wellesley, Mass.) **The prevention of mental illness.** *Ment. Hyg.*, 1961, 45, 191-209. This report is a discussion of the 10-year community mental health project evolved by Erich Lindermann and his associates at Harvard through the Human Relations Service of Wellesley. The approach began with the study of individual cases of mental ill health and developed to a concentration upon the "population of the community rather than the individual alone." Thus, the emphasis, while not ignoring the individual patient, was preventive. Methods are discussed under the following headings: consultation, inservice training, study of hazards, case finding, special clinics, brief clinical services, mental health education, and preventive group counseling. —R. L. Witherspoon.

722. OPOLON, IRENE. **De la désinsertion sociale de l'adolescent.** (On the social isolation of the adolescent.) *BINOP*, 1959, 15, 201-205. Three histories of cases referred to the school physician are discussed in terms of social and psychological factors. —S. G. Vandenberg.

723. PALMER, STUART. (Univer. of New Hampshire, Durham) **Frustration, aggression, and murder.** *J. abnorm. soc. Psychol.*, 1960, 60, 430-432. The major hypothesis was: "There is a significant positive relationship between the amount of frustration experienced by persons in infancy, childhood, and adolescence, on the one hand, and whether or not they commit murder, on the other hand." Two samples were selected: (a) 51 convicted male murderers and (b) each murderer's nearest-age brother (control group) who had attained the age of the murderer when the latter committed the crime. Other selective criteria were employed. The 51 mothers of the murderer-nonmurderer brother pairs completed a 143-item questionnaire twice, once for each son. The questionnaire yielded scores for the following factors: Physical Frustration, Psychological Frustration, General Frustration, Socially Acceptable Aggression Release, Socially Unacceptable Aggression Release, and General Aggression Release. Chi square tests of significance were applied. Principal results were: "... significantly more murderers than control brothers scored high on the Indices of Physical, Psychological, and General Frustration ... a significantly greater number of control brothers than of murderers had high scores on the Index of Acceptable Aggression Release. Conversely, a significantly greater number of murderers than of brothers had high scores on the Index of Unacceptable Aggression Release. On the Index of General Aggression Release, scores were approximately the same for [the two groups]. . . ." Due to certain "major drawbacks" of a methodological nature, the author regarded the study as suggestive only. —H. D. Holloway.

724. PETURSSON, ESRA. (Payne Whitney Psychiat. Clinic, New York City) **A study of parental deprivation and illness in 291 psychiatric patients.** *Int. J. soc. Psychiat.*, 1961, 7, 87-96. This is a study of 291 patients, in Iceland, with functional psychiatric illnesses. The disorders presented by the patients in office visits over a year included psychoneurosis, alcoholism, depression, and schizophrenia. The incidence of broken homes, illegitimacy, parental death, parental health during the patient's childhood and adolescence, and functional psychiatric illness in the parents was recorded. The loss of parents by death did not appear to be significantly higher than in the general population, the incidence of broken homes from all causes was 31.7%, and in 77.3% of the cases one of the parents suffered from psychiatric illness during the patient's childhood. There appeared to be a rather high incidence of the patients developing the same type of psychiatric illnesses as the parents. —E. B. McNeil.

725. PRZETACZNIKOWA, MARIA. (Inst. Matki i Dziecka, Warsaw) **Rozwój psychiczny dzieci w pierwszym roku życia w przekroju trzech środowisk wychowawczych.** (Mental development of children in the first year of life in three kinds of educational environment.) *Psychol. Wych.*, 1960, 3, 32-46. The purpose of psychological research conducted by the Mother and Child Institute in Warsaw in the years 1958 and 1959 was to collect preliminary data regarding the psychological development of children between 0 and 3 years, brought up in three kinds of environments: (a) Infant Homes, (b) in crèches, (c) in families. The investigation embraced 150 children, 50 of each environment. The method of the "natural experiment" was adopted. There were registered the various ways the children reacted to certain definite objective stimuli, (social or verbal) adapted to the functional possibilities of the given age. Observations of the child in the task situations were complemented by interviews with those who took care of the children and whenever necessary also by observation of the unhampered activity of the child. The report includes a discussion of the differences between the mental development of infants in the three above mentioned kinds of environment as regards: (1) general motor activities, (2) grasping and handling, (3) recognition of objects, looking for objects that disappear from the field of vision, (4) social contacts, imitation of simple acts and games. An analysis of reactions of children during the first year to the various situations during the experiment, revealed the following: (1) Differences in the mental development caused by differences of the environment made their appearance beginning with the fourth month of life and increased with age. (2) Most "normal" i.e., in accordance with inventories of child development, were the reactions of children brought up in the family, and the reactions of children attending day crèches did not differ so much. (3) The reactions of children from Infant Homes revealed considerable deviations from the standard norms of development, increasing during the second half of the first year; such deviations can be observed as regards general motor activities as well as grasping, social contacts, and (above all) the higher forms of intellectual activity. A characteristic feature in the behavior of children from the Infant Homes was their passive attitude and the intensification and frequency of negative emotional states; the amount of experiences as regards the sensorimotor activities of the children under investigation was poor. —English Summary.

726. SCHAIN, RICHARD J. (Natl Inst. Med. Res., London, England), & YAN-
NET, HERMAN. **Infantile autism.** *J. Pediat.*, 1960, 57, 560-567. (1) The literature on early infantile autism has been reviewed, and the considerable differences of opinion as to the nature of this syndrome have been discussed. Our criteria for diagnosis have been set forth as primarily based on the development of a severe personality disorder during the first two years of life as characterized by a failure to relate to people. (2) The clinical data from 50 cases of infantile autism have been analyzed. The normal physical findings, good family backgrounds, normal perinatal histories, and particular onset of symptomatology are in general agreement with previous descriptions of this disorder. (3) 42% of the group had histories of having had seizures at some time in their lives. 20% of the group had exhibited sufficient

evidence of recurrent seizures to warrant the secondary diagnosis of "convulsive disorder" at the time of admission. This association has not been previously reported. (4) The possibility is raised that the limbic system is the site of a cerebral abnormality accounting for these children's susceptibility to seizures and is related to their severe affect disorder. Features of the limbic system are discussed that make it a likely locus of cerebral dysfunction in children with autistic disorders. —Authors' Summary and Conclusions.

727. SCOTT, M. GLADYS. *The contributions of physical activity to psychological development.* Res. Quart. Amer. Ass. Hlth phys. Educ. Rec., 1960, 31, 307-320. The author reviewed 67 published reports in preparing this review. The following implications may be drawn as the contributions of physical activity to psychological development, although the author admits to a general paucity of convincing data: attitudes toward health, physical education, and recreation are changed; social efficiency may be improved; sensory perception and responsiveness to environment may be improved, although research to date does not provide a basis for building a premise of values; better relaxation, i.e., capacity to release muscular tension, is promoted; and skills are acquired. —H. H. Clarke.

728. STOTT, D. H. (Glasgow Univer.) *A new delinquency prediction instrument using behavioral indications.* Int. J. soc. Psychiat., 1960, 6, 195-205. After making a detailed critical appraisal of the predictive procedure and prediction scale of the Gluecks, Stott discusses the usefulness of the Bristol Social Adjustment Guides as an alternate method of assessing the personality and attitudes likely to predispose a child toward delinquency. In this scale, behavior is observed and rated and then interpreted in terms of a standard procedure based on the statistical probability of each item of behavior being found among maladjusted or normal children. The efficiency of such a prediction procedure is discussed in terms of the number of false positives and false negatives it produces. —E. B. McNeil.

729. STRAND, GLENN T., & LARSON, WILLIAM R. (Univer. of Washington, Seattle) *Five professions view the unmarried parent.* Int. J. soc. Psychiat., 1960, 6, 269-276. A questionnaire regarding the treatment of unmarried mothers was sent to all pastors, obstetricians, gynecologists, general practitioners, internists, social workers, school advisors-counselors, and public health nurses in Seattle. 35% were fully answered out of 1,500 sent. The responses to the survey were presented in terms of (1) recommendations for the unmarried mother, (2) attempts to counsel, (3) conditions contributing to unmarried pregnancy, and (4) what can further be done about the unmarried problem. The similarities and differences of viewpoint between five professions (physicians, social workers, school counselors, and public health nurses) are presented. —E. B. McNeil.

730. SUTHERLAND, BETTY STEELE (Children's Hosp. Res. Foundation, Cincinnati, Ohio), BERRY, HELEN K., & SHIRKEY, HARRY C. *A syndrome of phenylketonuria with normal intelligence and behavior disturbances.* J. Pediat., 1960, 57, 521-525. (1) Two patients with biochemical characteristics of phenylketonuria have been described, one with normal and the other with nearly normal mental ability. (2) On preliminary examination of previously unreviewed psychological and psychomotor symptom complex common to both patients was recognized, which made diagnosis possible despite normal mental capacity. (3) A phenylalanine-restricted diet employed in treatment of one patient brought about alleviation of psychomotor and psychological agitation, suggesting that dietary therapy in the older phenylketonuric child may be beneficial. (4) There appears to be a definite relationship between IQ and serum phenylalanine concentration in these two children with normal and nearly normal intelligence. (5) The diagnosis of phenylketonuria in a child with normal mental ability may lead to recognition of families in which the abnormal gene might not otherwise have been discovered. —Authors' Summary.

731. VISAKORPI, J. K., & HYRSKE, I. (Univer. of Helsinki, Finland) *Urinary amino acids in mentally retarded patients.* Ann. paediat. Fenniae, 1960, 6, 112-118.

The writers examined the urinary amino acids of 177 mentally retarded patients. The excretion of amino acids in mentally retarded individuals is found to be normal, on the average. The material studied showed up no specific aminoacidurias as described in association with mental retardation. Whereas other types of acidurias, cystinuria and polypeptiduria, were encountered more frequently than in healthy persons. — Author's Summary.

PUBLIC HEALTH AND HYGIENE

732. AVERY, MARY ELLEN (Johns Hopkins Hosp., Baltimore, Md.), & OPPENHEIMER, ELLA H. **Recent increase in mortality from hyaline membrane disease.** *J. Pediat.*, 1960, **57**, 553-559. The "incidence" of fatal hyaline membrane disease in The Johns Hopkins Hospital has been compared for two 5 year periods. During the first, 1944-1948, oxygen was widely used in the premature nursery, beginning 30 to 60 minutes after delivery. The second, 1954-1958, was an era when the concentration of oxygen in the incubators was usually restricted to below 40%. A slight increase in the "incidence" of the disease in the later period makes is evident that low oxygen concentrations after the first 30 minutes were not associated with a decrease in the "incidence" of hyaline membrane disease. The proportion of autopsies on premature infants showing hyaline membrane disease increased from 21.9% in 1944-1948 to 26.2% in 1954-1958. —Authors' Summary.

733. BAKWIN, HARRY. (132 East 71st St., New York City) **Homicidal deaths in infants and children.** *J. Pediat.*, 1960, **57**, 568-570.

734. LEVINE, LEO (Mass. Dept. Publ. Hlth, Jamaica Plains), WYMAN, LOUISE, BRODERICK, EDWARD J., & IPSEN, JOHANNES, Jr. **A field study in triple immunization (diphtheria, pertussis, tetanus).** *J. Pediat.*, 1960, **57**, 836-843. A useful field study in multiple immunization was described, which was carried out within the routine of a private pediatric practice with a minimum of inconvenience to the child. This was made possible by the high sensitivity of the agglutination techniques whereby reliable antibody titers to three antigens, diphtheria and tetanus toxoids and pertussis vaccine, were obtained for each treatment group from single heel punctures. The methods were described and the evidence of their validity discussed. The validity of the hemagglutination method is supported by the facts that the results show clear dependence on the number of antigen doses injected and a reasonable decline in time after the last antigen injection. —Authors' Summary.

735. McKENDRICK, T. (Hillingdon Hosp., Uxbridge, England) **Poisoning accidents in childhood.** *Arch. Dis. Childh.*, 1960, **35**, 127-133. The annual number of children accidentally poisoned in north-west Middlesex has greatly increased during the last 10 years. A study of 275 case histories over this period has shown that medicaments and household materials have contributed more or less equally to the rise. The most susceptible age group was from 1½ to 2½ years of age. Relatively more accidents occurred during the summer months, the excess probably being due to longer daylight hours. The commonest medicaments taken were aspirin, barbiturates, laxatives, ferrous sulphate and hyoscine. Disinfectants, bleaches, cleaning agents, turpentine and paraffin accounted for over half the household materials. A more detailed study of 145 incidents showed that children obtained poisons from all parts of the house but most often from the kitchen and living room. Most of the substances taken had not been put away after use, were actually in use at the time, or were inadequately stored. Of this group, enough was known about 120 accidents to suggest that two-thirds could have been readily prevented and that these could be traced to the action (or lack of action) of adults. Predominant were carelessness in handling or storing materials and failure to appreciate the ability of children. . . . —From Author's Summary.

736. ROBERTSON, WILLIAM O. (Children's Hosp., Columbus, Ohio) **An investigation of maternal concerns by mail survey.** *Child Developm.*, 1961, **32**, 423-436. Two mail questionnaire surveys were conducted among nationwide samples of mothers of young infants to determine the incidence of their various concerns. The results were comparable. The mothers were found to be nonselected except, as was anticipated, with regard to their level of education. Concerns about gastrointestinal dysfunction, skin disorders, and sleep disturbances were the most prevalent. Fluctuations in incidence were analyzed for association with such variables as maternal age, education, and parity, infant's sex, and geographical location of the family. Only an increase in maternal parity was associated with a reduction in incidence of concerns. It is suggested that the technique of mail questionnaire survey offers an effective and economical method for collecting objective data. Wider usage should be considered in approaching problems relating to comprehensive child health supervision. —Author's Summary and Conclusions.

737. SCHALLER, WARREN E. **Health needs and interests as a basis for selecting health content in secondary schools.** *Res. Quart. Amer. Ass. Hlth phys. Educ. Rec.*, 1960, **31**, 512-522. An inventory for determining the health needs and interests of high school students was first devised; health needs and interests were obtained by interviews with students, parents, health educators, and physicians and curricular validity was established by recourse to nine high school health textbooks and consultations with health experts. These inventories were administered to 501 students, 100 parents, 20 health educators, and 17 doctors. The conclusions included: There is a common core of interest among high school students; the expressed needs of boys and girls are markedly different; the areas of understanding mental health and mental illness, personal care of the body, understanding harmful habit-forming substances, and the importance of activity and rest appear to be the most important areas for inclusion into a high school health course; the areas of structure and function of the human body, community health services and facilities, and official and voluntary health programs appear to be the least desirable for inclusion in a high school health course, according to the interests expressed. —H. H. Clarke.

HUMAN BIOLOGY AND DEMOGRAPHY

738. HUGH-JONES, KENNETH (St. Bartholomew's Hosp., London, England), **NEWCOMB, ALVAH L., & HSIA, DAVID YI-YUNG.** **The genetic mechanism of galactosaemia.** *Arch. Dis. Childh.*, 1960, **35**, 521-528. A family is presented in which the grandfather was proven to have galactosaemia by galactose tolerance tests and by the determination of the enzyme galactose-1-phosphate uridyl transferase level in his blood. His six children were shown by similar enzyme studies to be heterozygous carriers of the condition and one of these married another unrelated heterozygous carrier and they had two affected children in their family of four. A complete review of the literature is given and genetic analysis of the data collected strongly suggests that galactosaemia is transmitted as a Mendelian autosomal recessive gene. The results of our laboratory studies in the detection of the heterozygous carrier in galactosaemia are given and these confirm, in this family, this mode of transmission. —Authors' Summary.

739. ILLINGWORTH, R. S., & WOODS, GRACE E. (Univer. of Sheffield, England) **The incidence of twins in cerebral palsy and mental retardation.** *Arch. Dis. Childh.*, 1960, **35**, 333-335. We set out to determine whether the high incidence of twins in children with cerebral palsy and with mental retardation without cerebral palsy is merely due to the high incidence of prematurity associated with multiple pregnancy. Statistical analysis has shown that in the case of cerebral palsy the high incidence of twins is not explained by the high incidence of prematurity which is known to be related to cerebral palsy. In the case of mentally retarded children without cerebral palsy the high incidence of twins may well be merely related to the high

incidence of prematurity known to be a factor in mental retardation. Of 729 mentally retarded children without cerebral palsy, 20.9% were prematurely born and the incidence of twins was 3.8%. Of 651 children with cerebral palsy, 35.9% were prematurely born, and 8.4% were twins. —Authors' Summary.

740. KROGMAN, WILTON MARION. (Univer. of Pennsylvania, Philadelphia) **A human biologist looks at the contemporary scene.** *Child Developm.*, 1961, **32**, 417-422.

741. ROSEN, S., HUNT, H. R., & HOPPERT, C. A. **The importance of the genotype on susceptibility to dental caries in the rat.** *J. dent. Res.*, 1961, **40**, 352-354. Newborn caries-resistant rats were fostered by caries-susceptible mothers and vice versa. There was no change in caries-resistant or caries-susceptible rats. It was concluded that the genotype was of import in caries resistant. —W. M. Krogman.

742. STEINBERG, A. G., WARREN, J. F., & WARREN, L. W. **Hereditary generalized microdontia.** *J. dent. Res.*, 1961, **40**, 58-62. A case report of a family in which true generalized microdontia has occurred in three generations. —W. M. Krogman.

743. VEITH, ILZA. (Univer. of Chicago, Ill.) **Twin birth: blessing or disaster. A Japanese view.** *Int. J. soc. Psychiat.*, 1960, **6**, 230-236. The response to twin birth in mythology and history is discussed. The origin of the present-day attitude toward twinning in Japan is traced and an account is given of the historical aversion and elaborate concern with the significance of multiple birth. The ancient Japanese practice of giving up one of a set of twins for adoption made twin birth an event of considerable concern to the mother and the relatives. —E. B. McNeil.

EDUCATION

744. ASTINGTON, E. (Stockport School) **Personality assessments and academic performance in a boys' grammar school.** *Brit. J. educ. Psychol.*, 1960, **30**, 225-236. It is hypothesized in this study that predictions of academic performance of grammar school candidates on the G.C.E. would be improved if personality qualities were considered in the predictions. Teachers' ratings for six qualities, classmates' ratings on sociability, and a questionnaire for appraising introversion-extraversion were used to provide the measures of personality with some 300 boys in five primary schools in a county borough in 1953-1954 and 1954-1955 as well as some 700 boys in the maintained grammar school in the same town. At all levels academically successful boys received higher rating than unsuccessful boys. Dominance showed no consistent relation to academic achievement; successful boys were more nervous but more stable. Grammar school teachers' ratings of persistence, independence, and interest showed an average correlation of .60 with G.C.E. achievement scores; however, similar ratings by primary school teachers showed low correlations. —W. D. Smith.

745. BOISSIER, M. **Application de tests de connaissances en français et en calcul aux classes de sixième du lycée de garçons de Valence (Drome).** (Applying French and mathematics achievement tests to 12th grade classes of the boys' lyceum in Valence.) *BINOP*, 1959, **15**, 167-174. The achievement tests for French and mathematics used in 1957 for the evaluation of the school standing of 8th grade students are still usable with 12th grade students. Apparently few students are eliminated. Students in the "classical" program are slightly superior to students in the "modern" program of studies. —S. G. Vandenberg.

746. BROWN, ANN WILSON, & HUNT, RAYMOND G. (Washington Univer., St. Louis, Mo.) **Relations between nursery school attendance and teachers' ratings of some aspects of children's adjustment in kindergarten.** *Child Developm.*, 1961, **32**, 585-596. 42 matched pairs of kindergarten children, half of whom had attended

nursery school, were rated by their teachers on scales reflecting adjustment to kindergarten activities, to peers, to the teacher, and "inner" adjustment. They were also rated for "brightness." Children who had attended nursery school were rated by their teachers as less well adjusted to kindergarten activities, to their peers, and in their "inner" adjustment than were children who had not attended nursery school. Differences were consistent in direction on the "teacher" scale, but not statistically significant. No differences were found between the two groups on ratings of brightness, nor do the brightness rating correlate notably with any of the adjustment ratings. These findings are discussed in relation to other work in the field and in terms of a variety of alternative hypotheses. Suggestions are made for further research. —Authors' Abstract.

747. COLEMAN, J. H., & JUNGEBLUT, ANN. (Executive Analysis Corp., New York City) *Children's likes and dislikes about what they read.* J. educ. Res., 1961, **54**, 221-228. The object of this study was to see whether children could utilize a six-point scale of liking and aversion to indicate their attitudes or reactions to several prose excerpts apparently within their ability to read and comprehend. The indications are that the children readily learned to utilize the rating scale effectively. Implications are discussed. —From Authors' Summary.

748. EGIDIUS, HENRY. (Lund) *Ett differentieringsförsök på mellanstadiet.* Pedagog. Forsk., 1959, No. 2, 70-78. An experiment with streaming according to pupils' verbal intelligence has been carried out in Lund schools. Division of the pupils into verbal and non-verbal classes was made on the basis of teachers' judgments. At the same time, the pupils were given a group test comprising the following parts: word completion, verbal analogies, puzzle test, non-verbal cross-out, picture arrangement. The children who had been selected for non-verbal classes had low marks in the verbal tests. In the non-verbal tests, too, their averages were below the averages of the verbal classes, but here the overlap was in several cases fairly considerable, particularly in the puzzle test. So there were in the non-verbal classes a number of children with more than average capability in non-verbal intelligence variables. The pedagogical conclusions drawn from this are, on the one hand, that children of low verbal capability should have tuition in the verbal subjects adapted to their difficulties, on the other hand that their curriculum should include subjects and exercises which develop their special abilities. —English Summary.

749. FABIATO-LAISNE, E. *Quelques cas d'orientation scolaire.* (Some cases of medical consultation in the public schools.) BINOP, 1959, **15**, 206-210. An analysis of 64 cases drawn at random from the files showed 11 cases of motor difficulties, 20 cases of endocrine disturbances, 37 cases of character problems, 15 cases of general medical problems, and 18 cases of excessive fatigue. Relationships of these categories to body types is discussed. —S. G. Vandenberg.

750. FLEURANT, G. *L'examen d'orientation professionnelle des sourds-muets au centre d'application de l'I.N.E.T.O.P.* (The vocational guidance examination of deaf mutes in the vocational guidance center of the National Institute of Vocational Guidance.) BINOP, 1960, **16**, 180-216. A battery of tests is listed; the administrative time for all the tests is one day. Special difficulties encountered in using these tests with deaf children are described and suitable ways of overcoming them presented. Tentative norms for 166 cases are presented for some of the tests. The article ends with some results of inquiries into the vocational choice of deaf children, the majority 13 to 15 years of age. —S. G. Vandenberg.

751. GEORGE, C. *Enquête sur un groupe de bons élèves de cours moyen non-candidats à l'entrée en 6^{me}.* (A study of a group of good elementary school students who were not candidates for entry into secondary schools.) BINOP, 1960, **16**, 24-42. A study was made of 47 students who obtained superior scores on achievement tests in 1957 but who did not apply for entrance into secondary school. Reasons for this failure were obtained from the schools and frequencies are presented for the major causes: physical immaturity of child, presumed inability of child (family opinion),

absence of nearby school, needed on the farm, family conditions, opposition of teacher(s), health, indifference or lack of information of the family, desire to work immediately or preference for industrial work or trade. Another 52 students had changed their minds since the start of the study and had indeed entered secondary school. —S. G. Vandenberg.

752. GUENON, P. Champs d'action de l'orientation professionnelle. (Field of activity of vocational guidance centers.) *BINOP*, 1960, **16**, 92-97. A statistical breakdown of 397,373 consultations in the Paris vocational guidance centers into 11 categories is followed by a discussion of some types of consultations. —S. G. Vandenberg.

753. HÄRNQVIST, KJELL. (Göteborgs Univer.) *Intelligensutveckling och skolresultat.* (Intellectual development and school achievement.) *Pedag. Forsk.*, 1959, No. 2, 57-69. In a representative Swedish sample of 7110 boys comparisons were made between different educational groups relating test scores at the age of 19-20 years to school marks 8 years earlier. Analysis of covariance was applied to the data. Marked differences in "IQ-gains" were found between higher and lower educational groups. As the main result of the study, however, we regard the identification of some methodological problems concerning the relation between results of regression analysis and of comparisons of average differences in individual scores between the two occasions. To be meaningful such a comparison should refer to scores of parallel tests measured in a common and absolute scale. —English Summary.

754. KRAUGERUD, TOR. (Hokksund) *Geografiske forskjeller i eteletallet ved de høgre skoler i Norge og deres årsaker.* (Geographical differences in the number of pupils in the secondary school in Norway and their causes.) *Pedag. Forsk.*, 1959, No. 2, 79-88. The percentage of the pupils in the primary schools in Norway who continues in the lower classes in the secondary school varies greatly from county to county. Among the twenty counties in Norway the percentage ranges from 14 (Finnmark) to 58 (Oslo). This paper deals with an attempt to find the factors that cause the great differences in the percentage of pupils who attend secondary school. By means of multiple correlation it is shown that it is possible to render an account of 80% of the variance in the percentage of the pupils who go on from primary to secondary school. 73% of the total variance is attributed to differences in net incomes per inhabitant in the counties. 6%-9% of the variance is attributed to the relative amount of town population in the counties, and is interpreted as the influence of the milieu, as we find people with educational background concentrated in the towns. —English Summary.

755. KVIST, PER. *Samsvaret mellom karakterer i folkeskolen og den høgre skolen.* *Pedag. Forsk.*, 1960, No. 1, 16-32. The investigation deals chiefly with the correlation between marks in Norwegian, arithmetic and English from the final examination in primary school and marks obtained by the same pupils within corresponding areas in high school. The material was 511 pupils who entered high school in Bergen 1951. Of the boys 15.47% and of the girls 18.70% were rejected during the first three years in high school. On an average the girls got better marks in Norwegian and English both in the primary school and on all levels in high school, while in arithmetic and mathematics there was a slight difference in favour of the girls in primary school but later on a marked difference in favour of the boys. As there are different departments or streams with varying curriculum and standards in high school, the differences in marks obtained in primary school by pupils belonging to these streams were calculated. The marks obtained in English differed most significantly and the marks in Norwegian least. . . . The figures show that in most cases the marks in English have the highest prognostic value. . . . —English Summary.

756. MORAN, R. E. (Univer. of Puerto Rico) *Levels of attainment of educable subnormal adolescents.* *Brit. J. educ. Psychol.*, 1960, **30**, 201-210. This study is an attempt to evaluate, by means of specially designed or adapted tests, the academic achievement of a representative sample of 300 educationally subnormal adolescents

in the "top" classes of London, E.S.N. secondary schools. Their results are compared with those of "normal" children with the same chronological ages in a secondary modern school and with those of children of similar mental ages in a junior school. The over-all results of the E.S.N. adolescents show a wide range of variability, but generally fall below those of the junior school in every area tested, except craft. However, it was observed that in those schools where there were emphasis on and enthusiasm for a certain subject, in certain cases, this effected a relatively superior achievement in this subject, sometimes at the expense of others in the curriculum. It, therefore, seems that if the same enthusiasm and emphasis prevailed in all E.S.N. schools, and were directed at all subjects, combined with better teaching techniques and sound organization, an over-all rise in the general level of attainment could possibly be accomplished. —From Author's Summary.

757. POWELL, MARVIN, & PARSLEY, KENNETH M., Jr. (Western Reserve Univer., Cleveland, Ohio) **The relationships between first grade reading readiness and second grade reading achievement.** J. educ. Res., 1961, **54**, 229-233. The purpose of this study was to investigate the relationships between the results of the Lee-Clark Reading Readiness Test administered to entering first graders and the results of the California Reading Test administered to the same students at the beginning of the second grade. A further analysis was done in an attempt to determine whether the reading group placement suggested by Lee-Clark norms relates to second grade achievement scores. The sample consisted of 863 children. The results indicate that the Lee-Clark is useful primarily as a predictor of the California Total Reading Score results for the entire group. There seems reason to doubt its usefulness in dividing children into reading groups. —I. Woronoff.

758. REUCHLIN, M. **L'orientation dans l'enseignement du second degre, rapport sur l'activité des Centres d'Orientation.** (Vocational guidance in secondary schools, a report on the work of the Vocational Guidance Centers of the National Institute for the Study of Work and for Vocational Guidance.) BINOP, 1959, **15**, 150 p. Special issue. This report deals with the origin and nature of the activities of the Guidance Centers with regard to students in secondary schools. Attendance at the 6 year secondary schools (7th to 12th grade) is voluntary and takes the place of the obligatory attendance at an elementary school through the 8th grade. Such attendance is rapidly expanding. The report is organized around brief summaries of the activities of the 116 centers which answered the questionnaire sent to them. Since the original task of the centers was to provide vocational guidance in the elementary schools, some centers mention that the additional duties with respect to the secondary schools assigned to them by the government are not met in full. A list of the tests used by each of the centers is appended. Most frequently used are a group-Terman, some verbal and spatial reasoning tests of Bonnardel, and mechanical reasoning tests. Personality tests are relatively little used, partly because of pressure of time. In spite of the centralized organizations of the centers, this reader was struck by the apparent freedom of choice of the centers and the variety of points of view and practices emerging from the individual reports. —S. G. Vandenberg.

759. STRAKHOV, I. V. **On the psychological aspect of pedagogical tact.** Vop. Psikhol., 1960, No. 3, 57-63. This paper deals with the psychological aspects of pedagogical tact with its main components and various interrelated features. Teacher's tact is discussed in the light of psychology of human character. Various general traits of pedagogical tact are analyzed together with its individual features. By studying the accumulated experience of many teachers it has become possible to identify certain differences in pedagogical tact with respect to its structural features, level of development, stability, field of application, and the proportion of business and emotional contact in teacher-pupil relations. —English Summary.

760. VALIN, E. **Orientation scolaire au Liban.** (School counseling in Lebanon.) BINOP, 1959, **15**, 175-181. After discussion of practices in the 9 official Lebanese high schools with regard to the use of tests and selection procedures, the author

presents the results of an experimental study of new achievement tests for Arabian, mathematics, and French. Correlations of these tentative "entrance" tests and various school criteria were satisfactory. —S. G. Vandenberg.

761. VENABLES, ETHEL C. (Univer. of Birmingham) **Placement problems among engineering apprentices in part-time technical college courses. I—Range of ability.** *Brit. J. educ. Psychol.*, 1960, **30**, 237-243. Three groups of part-time day release students taking first year Ordinary National Certificate Classes in engineering were given a verbal and non-verbal intelligence test ($N > 1000$). On the verbal test the mean score was only slightly above that for the population as a whole, but on the non-verbal test 89% were at or above the fiftieth percentile with 27% in the top 10% of the population. Recent attempts to improve the selection of Ordinary National Certificate students appear to be unrelated to intelligence test scores, as the results obtained in two different areas between 1950 and 1957 show no significant differences. 50% had attended secondary modern schools as against 73% of the whole school population in the same age range. 75% had fathers in skilled and managerial jobs, compared with a national average of 53%. In 1957, only 18% of those not in full-time education were attending part-time day classes. An increase in the number of such students must increase the proportion from secondary modern schools and unskilled homes, so that the problems associated with teaching young people of poor verbal ability are unlikely to diminish. —From Author's Summary.

SOCIOLOGY

762. ALTMAN, IRWIN (Human Sci. Res., Inc., Arlington, Va.), & **MCGINNIES, ELLIOTT.** **Interpersonal perception and communication in discussion groups of varied attitudinal composition.** *J. abnorm. soc. Psychol.*, 1960, **60**, 390-395. The purpose of this study was to investigate the effects of various degrees of minority-majority conditions on member behavior during the course of group discussions and to ascertain some of the relationships between various aspects of interpersonal perceptions and discussion behavior. On the basis of their scores on a modified version of the California E scale, high school students were randomly assigned to one of five discussion conditions representing various degrees of group composition. Two group structures had homogeneous membership with respect to ethnocentric attitudes, that is, all had either high or low scores on the California E scale. The remaining three group structures were heterogeneous with respect to E scale scores and contained either low Es in the majority, high Es in the majority, or equal numbers of each. Each six-man group viewed and discussed a film dealing with the general problem of ethnic minorities and then completed a questionnaire measuring various aspects of interpersonal perceptions. Discussion behavior was measured by a series of indices coded during the course of group meetings. With one exception, the results showed no clear-cut and simple group structure effects, but indicated an interaction between group composition and interpersonal perceptions as determinants of discussion behavior. The major exception occurred for groups composed of equal numbers of high and low Es. In these groups, spontaneity, rate of response, and number of opposition-directed communications were generally lower than in any of the other structures. Members of these groups also were least attracted to their groups, were least accurate in their perceptions of opinions held by other members, and were less likely to choose sociometrically others in the group holding views congruent to their own. These findings suggest that opinion "equilibrium" results in a suppression of discussion activity and concomitant pressures to influence members holding divergent points of view. —Authors' Summary.

763. CLARK, ALFRED W. (Univer. of New South Wales), & **van SOMMERS, PETER.** **Contradictory demands in family relations and adjustment to school and home.** *Hum. Relat.*, 1961, **14**, 97-111. The focus of this study is the influence of another adult in the home, in addition to the parents, on the adjustment of the

child. A group of 20 children were identified as sufficiently maladjusted in school that they had been referred to the Psychology and Guidance Branch and who lived in a home where another adult also resided. A "control group" of 20 children had made a satisfactory adjustment at school but also lived in a home with an extra adult. The most common other adult was the maternal grandmother, and, when present, she was the dominant adult in the family. Intensive case studies were written on each child and his family situation. The antecedent condition to maladjustive behavior by the child was unsatisfactory relations among the adults. This arose from the situation where the other adult was not wanted in the home and yet was in a position to force entry. Among the control group, the other adult was liked and welcomed. The presence of the other adult in the homes of the experimental group led to a split between the father and the mother and subsequent withdrawal of the father from family activities. The children, their care and control, became pawns in a game of power and allegiance within these families, as was evidenced by contradictory demands being placed upon the children. In support of the hypothesis that maladjusted behavior is required for the child to maintain relationship with significant adults who are in conflict, the several areas of school performance were found to be affected successively. The areas, which were scalable, were in order (1) attitude, (2) achievement, (3) conduct, (4) peer relations, (5) performance in sports. Although not consistent with the scale, attendance was also a problem among children in the experimental group. It is believed that, to be effective, therapy would have to be directed at the configuration of conflicting social ties with the aim of reconciling or supplanting the contradictions among them. —G. T. Kowitz.

764. CONNOR, D. V. (Univer. of Otago, Dunedin) **Behavior in class groups of contrasting climate.** *Brit. J. educ. Psychol.*, 1960, 30, 244-249. In this study classroom groups of varying "climate" were identified by means of a questionnaire. A comparison of the behaviour of the groups of "contrasting climate" was made in terms of social interaction, teacher-pupil rapport, social structure, emotional adjustment and attitude to school. An analysis of the results shows: (1) that the class as a social unit seems to have more relevance to the kind of "climate" found than does the school as a whole, and (2) that the quality of the behaviour in those classes which are identified, on the basis of the original questionnaire, as having "good climates," varied widely from those having "poor climates." —Author's Summary.

765. ENDLER, NORMAN S. (York Univer., Toronto, Canada) **Social conformity in perception of the autokinetic effect.** *J. abnorm. soc. Psychol.*, 1960, 61, 489-490. Two hypotheses were tested: "(a) the AK point of cessation can be raised or lowered by special conformity pressures; and (b) the socially induced changes are relatively permanent, i.e., true conformity rather than compliance occurs." From a pool of 20 grade school and high school Ss, two treatment groups were randomly formed: a "stopped moving" group composed of 9 boys and 1 girl and an "always moving" group composed of 7 boys and 3 girls. The AK apparatus permitted constant illumination of the AK stimulus light (40-watts) and simultaneous variable illumination (119-watt maximum) of the objective field surrounding the AK light. The experiment was conducted in the following temporal sequence: (a) A pretreatment reference point (point of cessation of AK movement) was determined using ascending and descending field illumination series; (b) One day later trials were administered to Ss in the presence of an accomplice. For Ss in the Stopped Moving group, the accomplice reported cessation of movement at a field illumination level well below a given S's usual cessation point continuing until maximum illumination was attained. For Ss in the Always Moving group, the accomplice always reported AK movement regardless of field illumination. (c) and (d) Posttests I and II (same procedure as pretreatment series) administered immediately following and two weeks after treatment series respectively. Tests of statistical significance were applied. "The results indicate that social pressure produced a significant change in the point of cessation of AK movement (a relatively stable norm). The point of cessation was regularly either raised or lowered depending on the nature of the social pressure and was in the direction of conformity to an

accomplice's judgments. The new point of cessation was relatively stable, and manifested itself in nonsocial situations both immediately after, and two weeks after the Ss were subjected to social pressure." —H. D. Holloway.

766. GETZELS, JACOB W., & JACKSON, PHILIP W. (Univer. of Chicago, Ill.) **Family environment and cognitive style: a study of the sources of highly intelligent and of highly creative adolescents.** *Amer. Sociol. Rev.*, 1961, **26**, 351-359. The current use of the IQ metric as the chief criterion of intellectual functioning restricts the study of social correlates of cognition to factors associated largely with "amount of intelligence." It is possible, however, to assess cognitive processes not now adequately sampled by the intelligence test and to identify individuals differing in what might be called "cognitive style." Two such groups of adolescents were studied: (a) those exceptionally high in intelligence (IQ) but not concomitantly high in creativity and (b) those exceptionally high in creativity but not concomitantly high in intelligence (IQ). The groups were found to differ not only in intellectual and social behavior, but to have their source in differing family environments, the one type characterized by a parental vigilance over academic performance, the other focusing upon less visible qualities, such as the child's openness to experience, his values, interests, and enthusiasms. How types of cognition are shaped by types of family structure would seem to be a fruitful area for further theoretical and empirical examination. —A. Montagu.

767. HART, THOMAS A. **The establishment of principles of human relations that may be used in the integration of all-white or all-Negro camps to interracial camp.** *Res. Quart. Amer. Ass. hlth phys. Educ. Rec.*, 1960, **31**, 16-23. Statements from the literature related to human relations and camping were obtained and formulated into principles; each principle was then validated by documentary analysis and by a jury of experts. 23 principles of human relations were proposed in interracial camps, as related to objectives, organization and administration, leadership, public relations, and the selection of counselors and to the program. —H. H. Clarke.

768. HARVEY, O. J. (Univer. of Colorado, Boulder), & **CONSALVI, CONRAD.** **Status and conformity to pressures in informal groups.** *J. abnorm. soc. Psychol.*, 1960, **60**, 182-187. This study was concerned primarily with the differential conformity of the leader, the second ranking member and the lowest ranking member to pressures in the informal group. The informal groups were 27 cliques sociometrically selected from a training school for delinquent boys. Under the incentive of a financial reward for the group most accurate in the experimental task, members of each group judged the distance between two simultaneous flashes of light in a dark room. While the other members were judging the distance between two flashes of light 12 inches apart, the leader (or second ranking or lowest status members depending on the experimental condition) estimated the distance between two flashes of light 48 inches apart, which unknown to the Ss were separated from the other lights by a partition. In this condition, under the assumption all were seeing the same lights, Ss made their judgments aloud and brought verbal pressures against the person who rendered the deviant judgments. The main finding of the study was that the second status member, the one only one step from the top, was significantly more conforming to judgments of the other members than was either the leader or lowest status man. The leader was least conforming, but not reliably less than the lowest status person. —Authors' Summary.

769. LEVINSON, BORIS M. (Yeshiva Univer.) **A comparative study of the verbal and performance ability of monolingual and bilingual native born Jewish preschool children of traditional parentage.** *J. genet. Psychol.*, 1960, **97**, 93-112. Jewish subjects usually have higher verbal than performance abilities. A study was made to determine (a) whether these differences are also found at the preschool level and (b) what influence, if any, did socioeconomic factors, bilingualism, and sex have on these differences. The Revised Stanford-Binet, WISC, Raven Progressive Coloured Matrices, and Goodenough Draw-A-Man Test were administered to 58 boys and 59 girls aged 5 to 6. No relation was found between socioeconomic background and the Revised

Stanford-Binet or WISC performance IQs. Differences for boys were not statistically reliable with reference to bilingual and monolingualism. Monolingual girls showed generally higher scores on 15 subtests. Sex differences were found in favor of boys such that they showed higher verbal scores; girls tended to have higher performance scores. —From Author's Summary.

770. LEVINSON, BORIS M. (Yeshiva Univer.) Subcultural variations in verbal and performance ability at the elementary school level. *J. genet. Psychol.*, 1960, **97**, 149-160. Jewish, Irish, and Italian native born boys attending the 4th, 5th, and 6th grades of all-day religious schools were matched for full WISC IQ. Verbal, performance, and subtest scores for each of the three groups were analyzed. The results indicated Jewish boys had significantly higher verbal scores and significantly lower performance scores when compared to the Irish and Italian boys. The latter two groups did not differ. The results are discussed in terms of the influence of schooling and its cultural emphases. —F. D. Horowitz.

771. LOTT, BERNICE EISMAN (Kentucky State Coll., Frankfort), & LOTT, ALBERT J. The formation of positive attitudes toward group members. *J. abnorm. soc. Psychol.*, 1960, **61**, 297-300. "The specific prediction tested . . . is that members of three-person groups who are rewarded for their performance in the presence of their fellow group members will more likely develop positive attitudes toward them than will members of such groups who are not rewarded." The sample included 48 children equally divided between third and fifth grades. 16 three-member groups were formed on the basis of their responses to two sociometric tests. A given three-member group was composed of Ss who had not chosen each other on the tests. Ss were required to play a game in which some members were rewarded for their responses and others were not. A postgame sociometric test was administered and the choices analyzed. The principal results supported the initial hypothesis, i.e., the postgame sociometric choices showed that ". . . rewarded Ss chose a significantly greater proportion of their fellow group members than did nonrewarded Ss." —H. D. Holloway.

772. MORROW, WILLIAM R. (State Hosp., Fulton, Missouri), & WILSON, ROBERT C. Family relations of bright high-achieving and under-achieving high school boys. *Child Developm.*, 1961, **32**, 501-510. The self-reported family relations of 48 bright high school boys making high grades were compared with those of an equated group making mediocre or poor grades, using 16 six-item questionnaire scales and other procedures. Results supported hypotheses that high-achievers' parents reportedly engage in more sharing of activities, ideas, and confidences; are more approving and trusting, affectionate, and encouraging (but not pressuring) with respect to achievement; are less restrictive and severe; and enjoy more acceptance of parental standards by their youngsters. Not supported were hypotheses that under-achievers' families show more over-protectiveness, more high-pressure for achievement, more parental disharmony, more irregularity of home routine; differences in goals for their youngsters; or differences in sociological factors such as parents' marital status, current occupation of either parent, or number and ages of siblings. Results were also consistent with the hypothesis that family morale fosters academic achievement among bright high school boys via fostering positive attitudes toward teachers and toward school and interest in intellectual activities, as mediating variables. —Authors' Abstract.

773. PROTHRO, E. TERRY. (American Univer., Beirut, Lebanon) Patterns of permissiveness among preliterate peoples. *J. abnorm. soc. Psychol.*, 1960, **61**, 151-154. In order to ascertain the generality of norms of permissiveness in child rearing, data published by Whiting and Child (1953) on primitive cultures from all parts of the world were examined by the use of factor analysis. It was found that there were three relatively unrelated dimensions of permissiveness: orality-sexuality, independence-anality, and aggression. Sexual permissiveness was associated with nonpermissiveness on oral matters, and oral permissiveness with nonpermissiveness on sex. Similarly,

permissiveness in independence training was negatively related to permissiveness in toilet training. There was some evidence for a general hypochondria factor as a part of the aggression factor. It was pointed out that the patterning of child rearing norms might be explained in terms of conscious motives of parents, ecological variables, or even the concerns of individual ethnographers. —Author's Summary.

774. PUTNEY, SNELL, & MIDDLETON, RUSSELL. (Florida State Univer.) **Effect of husband-wife interaction on the strictness of attitudes toward child rearing.** *Marriage Fam. Living*, 1960, 22, 171-173. 10 white professional couples, 10 Negro professional couples, 10 white working class couples, and 10 Negro working class couples responded both individually and jointly to questions relating to child rearing. A strong general tendency to take a strict position on these questions was noted, and no differences of any significance in this tendency were observed between males or females, whites or Negroes, professionals or workers. The questionnaires completed jointly tended to be even stricter than the questionnaires completed individually. This tendency occurred for all groups. . . . More than one-fifth of the couples took a stricter position on the joint questionnaire than either had taken on their individual questionnaires. Similarly, differences in opinion between husbands and wives tended to be resolved by agreeing on the stricter position. This tendency was also observed among whites, Negroes, professionals, and workers. —Authors' Summary.

775. SMITH, ANTHONY J. (Univer. of Kansas) **A developmental study of group processes.** *J. genet. Psychol.*, 1960, 97, 29-39. Using groups of four like-sexed subjects at five different age levels, this study tested two hypotheses: task oriented remarks would increase as a function of CA; independence of group members as opposed to their interdependence would decrease as a function of CA. Nursery school subjects 4 and 5 years of age, Brownie and Cub Scout subjects, Girl and Boy Scout subjects, and University students were asked to make up a story about a photo and about a movie. The 12-minute discussions were tape recorded, transcribed, and reliably coded in 8 categories. The results indicate a general confirmation of the two hypotheses with the 4- and 5-year-old nursery groups showing greater differences than any of the other groups. Findings are discussed in terms of relations to social development and to individual discussion and therapy groups. —F. D. Horowitz.

776. WALTERS, JAMES. (Florida State Univer., Tallahassee) **Relationship between reliability of responses in family life research and method of data collection.** *Marriage Fam. Living*, 1960, 22, 232-237. "The present study was undertaken to determine whether the advantages of the standardized interview in terms of the reliability of the data obtained are sufficient to warrant its use in research studies concerned with family behavior in which closed-end questionnaires are frequently used . . . the results lead to the conclusion that, in general, for an analysis of the type of question used with the kind of sample which was selected, the questionnaire might appropriately be chosen in preference to an interview since it is more economical and since it yields data as reliable as the interview method."

777. ZILLER, ROBERT C. (Univer. of Delaware), & BEHRINGER, RICHARD D. **A longitudinal study of the assimilation of the new child in the group.** *Hum. Relat.*, 1961, 14, 121-133. Seven successive sociometric questionnaires were administered in a period of 11 weeks in 28 school classes, grades 1 to 6, in which a new child entered. Five indexes of assimilation were used: the frequency with which he was chosen; his mean status in the group; frequency of change from one measurement period to another; the newcomer's comparison of his new situation with the old; the teacher's rating of his adjustment to the new class. Intercorrelations among the indexes for the seventh period when, it was assumed, his position would be relatively established suggested that assimilation was not unidimensional. A study across the seven time periods indicated that, while there was a decline, popularity at the end of 11 weeks is still substantially correlated with popularity on the first day. In general, girls were assimilated more readily than boys, and new pupils were assimilated in the primary grades more readily than in the intermediate grades. The children chosen

by newcomers were less popular than the choices of the regular class members, but the difference diminished over time. Newcomers changed their choices more frequently than did the regular members. The popularity of the new child followed a U-shaped curve. Initially, he was relatively popular, perhaps because he was new. Successive ratings indicated a decrease in popularity with an increase during the last two periods. It is suggested that the increase may be an index of knowledge and acceptance of group norms, the culmination of the process of assimilation. —G. T. Kowitz.

Book Notices

778. BHOJRAJ, SHEWAK. (Ed.) *Happy Growth of the Child*. Allahabad, India: Kitab Mahal, 1960. xv+240 p. \$1.50. This little book is a compilation of individual papers delivered at the 1958 conference of Balkan-ji-Bari, the Child Welfare Association of India. The 22 papers and the resolutions of the conference cover a wide area. Three of them were written by American child welfare specialists. The others are by Indians. They vary in scope and quality but give a very interesting picture of the hopes and struggles this new nation is facing. The chapters on "Pre- and Postnatal Care of the Child" and "Maternal and Child Services" picture, in detail, the needs and accomplishments in these areas and tell about the preventive and curative programs. Several chapters deal with recreation. One understands, for instance, the great problems in setting up a children's library while learning that very few children's books are available in the regional languages. I believe there are some 70 languages. Another group of articles deal with juvenile delinquency. One gets the impression that services like UNESCO, UNICEF, and WHO made a real contribution to the developing child welfare services. A feeling of hope and dedication permeates the writings. Many of the authors must have studied in Western countries and hope to set up comparable programs in India. The following sentence from Chapter 18 on "Coordination of Child Welfare Agencies" characterizes the struggles of the new nation: "As it is, there are too few workers, too little money, too little time to spare and too little social consciousness in the country still." One reads this little book with sympathy and hopes for India. It should interest all those who want to follow the development of services to children and youth in an underdeveloped country. —E. N. Plank.

779. BOSSARD, JAMES H. S., & BOLL, ELEANOR STOKER. *The Sociology of Child Development*. (3rd Ed.) Harper, 1960. xiii+ 706 p. \$8.50. In this third edition the authors attempt not only an updating of the 1944 revision, but a modest reorganization and expansion of material as well. Much of what Lichtenstein said in his description of the first edition (23:123) remains true of the present volume. The work brings to child development an emphasis which then had been "greatly neglected" and which today is still, in this writer's opinion, too much ignored by students of developmental psychology. The text has much to offer a person interested in studying children within the framework of today's families, for it represents in the author's words "a situational approach to behavior." Published after the death of Professor Bossard, this edition results from the joint effort of the first author and Professor Eleanor Stoker Boll. Some revision of the introductory chapters has eliminated sufficient material to permit condensation into a new first chapter on "The Sociology of Child Development." More significant changes are the addition of six entirely new chapters and the subdivision of an earlier section into two. Some of the chapters included under the heading "Facets of Family Life" have been retained within that section, while others have been placed in a new section entitled "Modes of Family Operation." The new chapters are "Families by Size," "The Empathic Complex and Child Behavior," "Domestic Animals: Their Role in Child Development," "Mothers' Role and Functions," "Fathers' Role and Functions," and "The Peer Group—Preschool Playmates." Those acquainted with the journal publications of the authors will recognize these chapter titles as interests of long standing with Bossard and Boll. The last three new chapters mentioned above are Boll's independent contribution to the volume; the revision, for the most part, of course is a collaborative effort. A feature of this book is the uniqueness and scope of its contents. Contained are discussions of problems not ordinarily covered in child development textbooks and

courses. The first major section deals with "The Child and His Family Setting," and includes, among others, chapters on family structure, size, process, culture, and sibling interaction. This is followed by a section containing chapters on the relation of family guests, domestic servants, and parent occupations to child development. Another section includes such chapter titles as family table talk, bilingual child, and family rituals. These are followed by sections devoted to class and status effects, problem families, impact of preschool and school age peer groups, and the school situation, and a final section dealing with children in the population and a survey of the changing status of children in society. A 30-page bibliography is found at the end of the book. —A. Grams.

789. BOWER, ELI M. Early Identification of Emotionally Handicapped Children in School. C. C. Thomas, 1960. xiii+120 p. \$5.50. "Individuals emotionally disabled to a minor, moderate or severe degree are unable, to that degree, to profit from their educational experiences. Therefore, children whose educational progress will be handicapped by emotional conflicts or defects need to be identified early to reduce the cumulative and concomitant effects of the disability." The research reported in this book attempts to provide the classroom teacher with a method that will help her identify the troubled youngster. There are eight chapters in all. Four are of an introductory nature—social and educational issues in early identification, a conceptual framework for defining emotionally handicapped, problems in early identification of emotionally handicapped children, and the direction and trends of past research. Two chapters focus on the research project itself—objectives and methods of the study, and research results and their implications for screening. The last two chapters focus on application—how teachers can use the results in screening, and some positive and preventive outcomes. An appendix contains the various rating scales and instruments used in the study. This study was interested in determining to what extent the various kinds of information collected could help differentiate the emotionally handicapped child from other children in the class. Other questions included: "To what extent is a teacher's perception of an emotionally handicapped child like the perception of the school clinician? To what extent do the children in the class identify the emotionally handicapped child as being different? How do emotionally handicapped children see themselves? To what extent is socioeconomic status a factor to be considered? Are emotionally handicapped children overage in comparison to their peers in the class? Are they children who generally underachieve in reading and arithmetic? How do they stand in comparison to their classmates in intelligence? Are they likely to have sight, hearing, or speech difficulties?" 60 school districts where the services of a social worker, psychologist, psychiatrist, or clinic team were available were included in the study group. The clinic team or clinic team member selected those children in the fourth, fifth, or sixth grades who were considered by the clinician to be moderately or severely emotionally handicapped. Those classes in which one or more of these designated children were enrolled were included in the study group. No reasons were given to any of the teachers for the selection of her class. Thus, the teacher collected information on all of the pupils in her class. The teacher recorded for each child: a group intelligence test score; scores on a reading and arithmetic achievement test; "Thinking About Yourself"—a personality inventory; "A Class Play"—a sociometric technique; the number of absences in a four-month school period; age-grade relation; father's occupation; teacher's rating of the child's physical status; and a teacher's rating of the adjustment status of each child. It was found that the emotionally handicapped child was absent more frequently than his classmates. However, the difference did not seem to reach a statistically significant level. There also were no significant differences in regard to father's occupation. Reading and arithmetic achievement were significantly lower for the emotionally handicapped child than his classmates. Differences were greater in arithmetic achievement than in reading achievement. The differences in achievement between the two groups of youngsters increased with each succeeding grade. There were significant group IQ differences between the two groups; however, these became nonsignificant when compared on the basis of the WISC or the Stanford-Binet. The emotionally

handicapped boy exhibited greater self-dissatisfaction than other boys. The emotionally handicapped girls showed more subtle differences. When given an opportunity to select roles in a class play, the emotionally handicapped children most often selected negative ones. Other children found it difficult to perceive them in a more positive or neutral role. The teachers rated 87% of the emotionally handicapped children as being among the most poorly adjusted. Each of the above findings is discussed, and some attempt is made to relate the screening procedures as described to the general area of prevention. While this book was written for teachers, school administrators, and school trustees, it will no doubt prove to be of considerable interest to all concerned with the knotty problems around identification of the emotionally handicapped child. —A. M. Kaplan.

781. DENHOFF, ERIC, & ROBINAULT, ISABEL. Cerebral Palsy and Related Disorders. McGraw-Hill, 1960. ix+421 p. \$12.00. The authors present a comprehensive developmental approach to the treatment and understanding of the individual with cerebral palsy and other cerebral dysfunctions. Physical, mental, emotional, and social needs from birth to maturity are examined, and the need for a true team approach demonstrated. The authors' backgrounds in medicine, occupational therapy, and developmental psychology and their extensive experience with disabled children are well reflected in the book. The practical experience of the Meeting Street School in Providence provides the background for many of the recommendations made. It is believed that cerebral palsy is the neuromotor component of a broader syndrome of cerebral dysfunction which includes mental deficiency, epilepsy, sight, hearing, speech, and hyperkinetic behavior problems. A principal stress of this developmental approach is its emphasis upon the healthy aspects of the child which can be developed and the degree of reversibility that can be achieved. This orientation places great emphasis upon proper diagnosis; much space is devoted to definition and development of the concepts cerebral palsy and cerebral dysfunction in terms of function rather than anatomical damage per se. Clinical descriptions of the other types of cerebral dysfunction are presented. The authors discuss an intriguing Hyperkinetic Behavior Syndrome, presumably organic in origin, involving the diencephalon, but without any obvious organic involvement. This syndrome is said to disappear spontaneously anywhere from age 8 to 18. If demonstrated to be valid, the relation of this syndrome to delinquency and antisocial behavior will be of considerable importance. A long chapter on associated sensory and perceptual-motor dysfunctions presents a rundown of the many defects with definitions, classification systems, incidence, causes, methods of testing for defects, physical and psychological treatment, and handling of parents. The chapter, "Comprehensive Medical Approach to Diagnosis and Prognosis," describes specific points to be covered and evaluated in clinical examinations with special attention to the use of pneumo- and electroencephalography. New research data are reported which show that correlation of the medical evaluation with the results of psychologic assessment is indicated. "Medical Timetable of Treatment" stresses early diagnosis and a treatment regime based on prognostic assessment. The use of drugs, orthopedic techniques, and neurosurgical methods are gone into in some detail. Another chapter presents a 7-stage developmental process and coordinates this with related physical, occupational, speech, and emotional therapies. "Neuromuscular Education" surveys and evaluates a variety of theories and mechanical aids and should be particularly informative to those who lack training in this area. While the book as a whole is psychologically oriented, a special chapter is given over to psychologic diagnosis of intellectual level, assessment of personality, family influence and parental counseling, and research in prevention and control. Another chapter is devoted to community programs including such topics as nurseries, school placement, employment, and dating. Finally, 14 case histories illustrating the developmental approach are presented. All of the chapters are well referenced. The presentation is clear and material excellently organized. Contents are characterized by breadth of coverage rather than depth but this is more than a superficial skimming of many topics. As a secondary reference source, this book should be of interest to all professional groups dealing with the cerebral palsied. Its greatest value may be in its lucid

presentation of multidiscipline issues and techniques. The authors' scholarship and experience have well served to demonstrate the value of the multidiscipline developmental approach to the treatment and understanding of cerebral dysfunction. —J. Siller.

782. de WIJN, J. F., & de HAAS, J. H. Groeidiagrammen van 1-25 Jarigen in Nederland. (Growth diagrams from 1-25 years in The Netherlands.) Leiden: Nederlands Inst. voor Praeventieve Geneeskunde, 1960. 30 p. fl. 2.50. From 1952-1956 data have been collected in the Netherlands on height and weight of 8798 boys and 8112 girls of about average social class. The mean values appear to be representative for "the" Netherlands child. From the Netherlands data separate growth diagrams have been prepared for 0-25 years old children and for preschool children, school children, and adolescents. The average age of the development of secondary sex characteristics is also given. . . . The averages for height and weight show similar differences for social classes as in former times, though at a higher level. Comparison with prewar values for height and weight is only partly possible, because in the Netherlands only small scale studies on height and weight of school children have been conducted, while data of preschool children and adolescents have not been collected. In this (meager) material the secular change in growth is already distinctly visible. The average for recruits, who have been measured and weighed for a century, show this change most clearly. . . . The prognosis of the amount of growth-shift in the near future is expressed in figures. —From English Summary.

783. ERIKSON, ERIC H. Identity and the Life Cycle. International Universities Press, 1959. v+171 p. \$3.00. This collection of selected papers makes up Volume 1, Number 1 of the new Journal of Psychological Issues. The Journal is dedicated to the publication of monographic length contributions to a general psychoanalytic theory of behavior. The advances in ego psychology during the last quarter of a century prompted the selection of Erikson's works for the Journal's maiden voyage and the choice was a particularly elegant one. The assembled papers all speak to the issue of "the unity of the human life cycle, and the specific dynamics of each of its phases, as prescribed by the laws of individual development and of social organization." In particular, an attempt is made to delineate one of the most important tasks of youth—the formation of ego identity. Three papers make up the monograph: Ego Development and Historical Change is based on clinical notes which provided the source material for Erikson's now well-known book "Childhood and Society." These notes first appeared in 1946 in Volume 2 of the Psychoanalytic Study of the Child and contain some classic insights about ego pathology and historical prototypes. The second paper (Growth and Crises of the Healthy Personality) was one presented to the White House Conference in 1950. It contains a restatement of his views regarding the stages in the development of the personality, the change in perspective which each brings, and the potential crisis presented by each; basic trust versus basic mistrust, autonomy versus shame and doubt, initiative versus guilt, etc. are discussed and delineated with examples. Erikson's approach to the healthy personality is particularly timely since this issue has recently reasserted itself with some vigor. The final and most recent paper is entitled The Problem of Ego Identity. Since this work was originally addressed to psychoanalysts, it tends to be more heavily spiced with references to therapy. It contains a fascinating analysis of the components of the "identity" of George Bernard Shaw as well as a detailed exposition of the process of forming an identity and of identity diffusion. These papers are preceded by an introductory chapter, written by David Rapaport, which contains a comprehensive account of the history of psychoanalytic ego theory to serve as an introduction to the work. Readers unfamiliar with the basic tenets of psychoanalytic theory might well find heavy weather on this maiden voyage, but Erikson's multitude of insights are well worth the effort they initially require to achieve them. —E. B. McNeil.

784. FISCHER, CARL C. The Role of the Physician in Environmental Pediatrics. Landsberger Medical Books, 1960. 122 p. \$5.50. Here in seven short chapters are presented the thoughts of a medical school professor and practitioner on aspects

of pediatrics that seem to be covered in the teaching curricula with disturbing infrequency. After redefining pediatrics as "the study of human growth and development and the art and science of insuring their normal course," the author emphasizes the importance of pediatric ecology or sociopediatrics in the present era. Five significant areas are covered in the succeeding chapters—the physician and accident prevention, the physician and adoption, the physician and the school health problem, the physician and the child with a handicap, and the physician and the adolescent (with special reference to juvenile delinquency). In each chapter the extent and nature of the problems are examined and the responsibilities of the physician are discussed. A selected list of important references is given at the end of each chapter. This book belongs in the personal library of every physician who is concerned with children. It should be required reading for every medical student as he is introduced to pediatrics. The book is concise. The vital significance of the subject matter is unquestioned. —W. W. Sutow.

785. GULLIKSEN, HAROLD, & MESSICK, SAMUEL. (Eds.) *Psychological Scaling: Theory and Applications*. Wiley, 1960. xvi+211 p. \$5.00. This collection of papers, originally presented at a conference on psychological scaling in 1958, explores recent developments in the various fields of scaling and considers some of the next steps in the further development of theory and methodology. While each of the 14 papers concerns itself with a special topic, five general areas are treated: properties of category scales and quantitative estimation scales, psychophysical scaling, measurement of values and abilities, measurement of utility in decision-making, and multivariate models of scaling. The papers are highly technical and often depend upon mathematical formulations to present the theoretical structure. Nearly all of them relate the theoretical considerations of scaling models to the data of their current research. Rarely has the scope and general applicability of scaling methods been as well indicated. The history of scaling methods, which is briefly outlined by Gulliksen in an introductory chapter, while not a long one, shows a tremendous growth in complexity, in the use of mathematical models, and in the variety of problems in which psychological scaling procedures can be useful. A rather lengthy bibliography is included providing references to other sources of technical discussions. Several of the references are indicated as guides to general reading in psychological scaling. —G. T. Kowitz.

786. HARRIS, IRVING D. *Normal Children and Mothers*. Free Press, 1959. x+287 p. \$6.00. 54 children rated by school personnel as well adjusted were examined by a research team comprised of a psychiatrist, a psychologist, and a social worker. The primary purpose of the study was "to increase our growing understanding of what goes on in normal personality growth." The theoretical orientation was psychoanalytic. The subjects were 8- and 9-year-olds, chosen to fill the gap in our knowledge concerning the latency period. Follow-up reports of the children at ages 12 and 13 were also analyzed. Following are several of the general findings of the research: (1) Marked were the variety and heterogeneity of normality. (2) The normality or adaptability of the children was closely related to the emotional maturity of the mothers. (3) The adjustment of the subjects was associated with two important maternal characteristics: dependability and understanding. (4) The findings led to strong emphasis on the notion of generational continuity, i.e., the mother's childhood relation with her parents. In these terms, three main types emerged: (a) traditional mothers were those who were satisfied with their own mothers and used them as a reference point in bringing up their own children; (b) rebellious mothers were dissatisfied with the excessive amount of strictness exercised by their own mothers; and (c) dependent mothers were dissatisfied with the lack of affection coming from their own mothers. (5) The pubertal adjustment of the children, as well as the relationship between husband and wife, was associated with the positiveness of the mother's feelings toward her own father. (6) Four groups of children were differentiated on the basis of their relative adjustment within vs. outside of the family. The nonpsychoanalytically oriented reader might feel uncomfortable with some of the interpretations. One might

wish, also, for more precision and rigor in presenting data in support of some of the interpretative statements. No interrater reliabilities are provided for the adjustment and other ratings. It is left to the reader to apply chi square to test the statistical significance of the data in the various tables in the Appendix. In general, the book offers numerous fruitful notions with regard to the dynamics of mother-child relations. —G. R. Medinnus.

787. INGRAM, CHRISTINE P. *Education of the Slow-Learning Child.* (3rd Ed.) Ronald Press, 1960. vi+390 p. \$5.50. This may be considered a general text which considers both the characteristics and needs of the mentally retarded as well as the educational principles and objectives for meeting these needs. The book is divided into five parts: Part I, Focus on Retardation, considers the nomenclature and characteristics of the mentally retarded child as well as the social attitudes surrounding him. Part II, The Educable Retarded Child and His Needs, focuses primarily on the principles and objectives for educational programs. Part III, Organization of the Program, considers selection of children and guidance for the retarded child. Part IV, Development of the Program at Various Levels, includes unit selection and planning, carrying out the unit, acquiring language, art, number skills, and the secondary school program. Part V, Rehabilitation Services and Trends, considers coordination of services, implementation of services, and development of cooperative programs. A section of questions and suggestions for study follows each chapter as well as a section on reading references. This book will prove of value to the special education teacher since it tends to emphasize what the retarded child is likely to achieve at different periods in his school experience. Special attention is also given to the secondary school program for the retarded child. Students, special class teachers, and educational administrators will find this an interesting general treatment of the educable retarded child. It can be used quite readily for college courses, and the section on questions and suggestions for study lends itself very well to class discussion. —A. M. Kaplan.

788. ISCOE, IRA, & STEVENSON, HAROLD. (Eds.) *Personality Development in Children.* Univer. of Texas Press, 1960. viii+171 p. \$4.00. The selections comprising this book were papers presented at a University of Texas lecture series entitled, "Personality Development in Children." Each selection describes research and/or theoretical approaches to various aspects of personality development of special concern to the contributor. The late Harold E. Jones discusses the place of the longitudinal design in child development research; findings from recent follow-ups of the Berkeley Growth and Guidance Studies are mentioned. John E. Anderson describes a longitudinal investigation, carried out under his direction, concerned with the prediction of adjustment over time. A number of problems inherent in such a study are discussed, and several fruitful areas for further research are mentioned. Several aspects of special interest include sex differences in adjustment and in prediction of adjustment; the importance of intelligence in the assessment and prediction of adjustment; the relative ease of predicting good adjustment as compared with predicting poor adjustment; and the problem of establishing a criterion of adjustment. In his paper Milton J. E. Senn makes a general plea for a multidisciplinary approach to training and research in human behavior. Psychologists would question the key role which he assigns the physician in such an interdisciplinary team. Robert R. Sears discusses the development of conscience in children and stresses the importance of identifying the childrearing conditions which determine the extent and rate of learning inner controls and sanctions. Understanding this process is mentioned as "one of the most important problems facing students of personality development." John W. M. Whiting describes the learning of adult roles and values through a process of identification ("the general process by which a person learns the role of another by interacting with him"). The control and administration of resources is the focus of this theory of identification. In terms of the parent-child model, the parent controls those things which the child wants. Through steps of cognizance (learning to predict the behavior of the parent), status-envy, and covert practice, the child learns the

adult role. Finally, Orville G. Brim discusses personality development in terms of role learning. Role learning theory is contrasted with traditional theories of personality which, it is argued, deal with personality characteristics at a general level and which entertain the notion of a consistent core of personality apart from the specific role and situation. Socialization is conceived of as a process by which the individual is prepared to perform adequately the many roles that will be expected of him. Because the papers deal with such sundry aspects of personality development, one receives the impression of fragmentation in this area. Indeed, this perhaps indicates the state of conceptualization at this time. —G. R. Medinuss.

789. JONES, EVE. *Natural Child Rearing*. Free Press, 1959. 288 p. \$4.95. Described as "a practical manual for reasonable parents," this volume was designed to present "basic philosophy which psychoanalytic psychology offers about normal child care and child development" from infancy through adolescence. Covering a wide range of topics from those of interest to parents of infants, including feeding, bathing, sleeping, teething, and toilet training, to topics of interest to parents of older children, including allowances, discipline, sexual problems, smoking, drinking, and automobile driving, the book is written in an easy-to-read conversational style and includes discussions on divorce, death, remarriage, and helping children overcome emotional or physical handicaps. Some of the rules-of-thumb of the author would appear to deserve qualification, e.g., "In any interaction between you and your child, he's the boss if it has to do with his own inner biological needs, and you are the boss when it has to do with those things we generally call social or cultural." But whether parents agree with the author or not, they will be stimulated by her provocative treatment of her material. —J. Walters.

790. KAPLAN, BERNARD, & WAPNER, SEYMOUR. (Eds.) *Perspectives in Psychological Theory*. International Universities Press, 1960. 384 p. \$7.50. Fourteen well known authors representing nearly every field of psychology have contributed to this volume celebrating the seventieth birthday of Heinz Werner. The contributions include research reports, research surveys, and theoretical papers which vary in length from a 6-page "Note" to a 47-page essay. While the pieces vary in depth, originality, and significance, there are no marked deviations from their general mean of excellence. Several of the contributions deserve special mention. The late David Rapaport's scholarly essay on "Psychoanalysis as a Developmental Psychology" may well become a classic. Silvano Arieti presents an original and potentially fruitful view of unconscious affects. Maslow's piece on "Resistance to Being Rubricized" is a refreshing explanation of why people reject amateur and even professional "pat" interpretations of their behavior. The essays by Norman Maier, Gardner Murphy, and Theodore Schneirla deal forcefully with persistent trouble spots in psychological theory. On the dust jacket of this volume is the statement that "All these scholars have been personally influenced by Heinz Werner." Unfortunately, Werner's influence was not always reflected in their contributions to "Perspectives in Psychological Theory," and for this reason the book lacks an internal unity. An imposed unity might have been achieved had the editors provided a summary chapter in addition to their brief biographical sketch. Even without unity, however, this collection of papers deserves a place on the psychologist's shelf. —D. Elkind.

791. LANTIS, MARGARET. *Eskimo Childhood and Interpersonal Relationships: Nunivak Biographies and Genealogies*. Univer. of Washington Press, 1960. xv+215 p. \$4.75. The reader who expects to learn much about the dynamics of interpersonal relationships among the Eskimos from this particular work will experience disappointment. However, if he is searching for the faithful utilization of the biographic technique, he might find this book worthwhile. 19 Eskimos of Nunivak Island, an isolated land area in the Bering Sea, were interviewed and given Rorschachs. Those relating their personal histories include the oldest man on the island, a woman of a secure and prosperous family, four young hunters, a shaman, a woman shaman and her family, and a woman who was involved in a scandal. The author intended to employ the biographic technique to portray the Eskimo culture in its operation; particularly,

the functioning of its social organization. Unfortunately, the effort is unsuccessful because of the problems created by the dedicated use of the biographic method. Reading the book is a laborious procedure because the biographies are presented in numbered paragraphs, with separate sections devoted to notes with parallel numbers for explanatory purposes. Several of the biographies are fragmentary; others are confusing because of unskillful interpretation of the Eskimo language. The memories of those interviewed about their childhood are vague and disjointed; moreover, the notes section does not adequately explain feasts and ceremonies referred to by the interviewees. The author, however, has been careful to keep interpretations completely separate from the narrations. The Rorschach interpretations, which were made by two Harvard raters who did not administer the tests, fail to shed much light on the personality dynamics of the Eskimo subjects. The author ventured several conclusions based upon the personal histories. Those of pertinence to students of child development are: owing to the custom of childhood marriage, first marriages tend to be unstable; as in other cultures, children from unhappy family situations exhibit personality problems; the two shamans studied reveal lonely childhood experiences combined with strong feelings of rejection and indications of latent homosexuality. Genealogies are presented in the appendix to show the actual variation in family structure, as well as to assist in the clarification of references in the biographies. —J. Woronoff.

792. LEDWITH, NETTIE H. A Rorschach Study of Child Development. Univer. of Pittsburgh Press, 1960. ix+336 p. \$6.50. This is basically a presentation of 11 children studied by use of the Rorschach and other means. An earlier book by the author (*Rorschach Responses of Elementary School Children*, 1959) provided objective normative data on 138 children who were studied longitudinally during the ages of 6 through 11 years. The sample was judged representative of normally functioning children, i.e., regularly attending school and never referred to any agency because of emotional maladjustment. Rorschach testing started at 6 years, 8 months, and was repeated at intervals into adolescence. A body of other data was collected at the same time, including psychometric and intelligence tests, human figure drawings, psychiatric interviews, social histories taken at home, interviews with parents and teachers, and follow-up interviews during adolescence. 10 of the 11 cases reported in the present book were selected from the larger sample for individual intensive analysis on the basis of differing from one another in terms of physical, mental, and environmental qualities. The eleventh, that of a girl of very superior intelligence, is presented in greatest detail (56 pages) with data available from birth and with Rorschachs starting at the 2-year level. The bulk of the book (278 pages) is given over to case presentations. In each, some background data are presented and then the child's Rorschach response which is given a "blind" interpretation with only Binet IQ and sex known. The Rorschach interpretation is then correlated with other information available on the child. This procedure is repeated for each child in the belief that this "... is an excellent opportunity to view personality development at a depthful level, progressively from year to year, as it emerges in complex interaction with the many elements present in the individual's life." The value of this technique in predicting future important personality developments is stressed particularly in comparison to the usual retrospective method of personality study. The stated purposes of the book are: "... to provide a learning device to those interested in an intensive study of the development of personality; to stimulate research ...; and to provide longitudinal Rorschach data and personal history material which may be used by students as well as clinicians in the perfecting of their scoring and predictive skills." Execution of this book is such that the purposes are well fulfilled. The author's great stress on and advocacy of "blind" Rorschachs may not be appreciated by some, and the validating material, i.e., elaboration of cases with non-Rorschach material, is much less stringent "proof" than most would find desirable for tight research. On the other hand, the value of serial Rorschachs and "blind" analysis is well illustrated in this highly readable book. This is really a book on dynamic child development where the uniqueness and flavor of each child is well maintained. —J. Siller.

793. MEYER, HENRIETTE H. *Das Weltspiel.* (The World Game.) Bern & Stuttgart: Huber, 1957. 143 p. The purpose of this book is to trace the development of the world game and to relate the findings of the test to the mental functions of the child. The first chapter gives a historical and literary overview of the fore-runners of the "world test," such as H. G. Wells' "floor games" and S. Kierkegaard's early phantasy creations. In the second chapter the "world technique" and the "world test" are discussed as therapeutic and psychological methods. The author contrasts M. Lowenfeld's "world technique" with C. Buehler's "world test." Lowenfeld's "world technique" is described as predominantly a form of play therapy which yields diagnostic insight. C. Buehler's "world test" is more formally developed and standardized and is predominantly a clinical diagnostic test instrument of projective nature. Scoring procedures, coding categories, and various methods of analysis and interpretations are discussed. The third chapter is theoretical in nature. It develops the constructs upon which M. Lowenfeld based her "world technique." A distinction is made between the primary and the secondary systems, which are seen as developmental phases. The primary system manifests itself in preverbal expressions, such as the creation of an imaginary world through the playful arrangements of toys; it is almost identical with the unconscious. The secondary system develops later with the acquisition of language, logic, and conscious concepts. In the fourth chapter several interesting case studies are reported in which the "world test" is used as the major diagnostic tool. The analysis of the "world test" is interpreted in the light of various other information. Information obtained through the "world test" is considered as hypothetical in nature. —R. E. Muuss.

794. MOWRER, O. HOBART. *Learning Theory and Behavior.* Wiley, 1960. xii+555 p. \$6.95 From Mowrer's prolific pen during 1960 has come this volume and a companion tome on "Learning Theory and the Symbolic Processes." This work is organized developmentally in the sense that the historical appearance of salient learning experiments and theoretical viewpoints is traced for the first six chapters, a theoretical synthesis is attempted in chapter seven, and the remaining five chapters are devoted to the amplification and application of Mowrer's new conception of learning and behavior. His synthesis of nearly 1,000 articles and papers on learning focuses on a Revised Two-Factor Theory and the Concept of Habit. While this interpretive account of the massive study of learning will have its greatest appeal to "pure" learning theorists, it is, in addition, a fascinating and thorough analysis of the nature of the problems the field of learning currently faces. As Mowrer points out, the reader might conclude that a psychologist is "an individual who thinks that the human race is directly descended from the white rat" since the bulk of the research reported and discussed has the rat as the principal protagonist. Since so much of the theoretical underpinnings of child development consist of hypotheses about reward, punishment, conditioning, generalization, discrimination, and the like, a thorough acquaintance with such notions would seem important to all workers in our field. In this respect, "Learning Theory and Behavior" is both like a handbook and an intensive review of the directions experimentation and learning theory have taken over the years. True to the principle of using more than one sensory modality for learning, a phonograph record for supplementary use with chapter seven is available, upon request, from the author. —E. B. McNeil.

795. MOWRER, O. HOBART. *Learning Theory and the Symbolic Processes.* Wiley, 1960. xiii+473 p. \$8.50. This book is the companion volume to "Learning Theory and Behavior," and the two books are designed to provide a framework for dealing with learning in general and the symbolic processes in particular. The process of learning is used to organize and interpret symbolic events ranging from mediation, language, imitation, signs and sentences, imagery, memory, attention, thought, insight, consciousness, causality, and human personality. Following a resumé and summarization of learning theory as espoused in the companion work, a variety of symbolic processes is explored. The author has deliberately omitted detailed consideration of currently "hot" topics such as general semantics and information theory and has made only a brief excursion into the area of psychopathology. The chapter dedicated to

Social Learning and Human Personality has, as does the entire book, a powerful air of the animal kingdom about it. Animal studies constitute the bulk of the reported research from which extrapolations are made to human behavior, but the careful interpretive handling of this material makes the outcome much less confusing than the reader might at first expect. The hundreds of studies used as a base for this work are luxuriously quoted from, as is Mowrer's "habit," but the content selected for verbatim reproduction always seems exactly relevant to the task it is asked to perform. The historical thoroughness of this and its related volume makes careful reading an insightful and rewarding experience. Despite the fact that pure learning theorists will read this work with greater excitement and pleasure than will persons dedicated to child development, it will be of considerable value to workers in a variety of developmental specialties and will be most prized by those concerned with the symbolic processes. A chapter on Learning, Causality, Probability, and Statistics is worth reading for anyone concerned with whether or not we are to use statistics or be used by them. —E. B. McNeil.

796. MYKLEBUST, HELMER R. *The Psychology of Deafness*. Grune & Stratton, 1960. xii+393 p. The author has presented the material in four parts: Part I, The Nature and Extent of Deafness; Part II, Deafness and the Psychological Processes; Part III, Language-Speech, Speechreading, Reading, and Writing; Part IV, Other Handicaps, Special Abilities, and Aptitudes. The Appendix includes Statistical Formulae, Differences Found on Each of the Items on the Projective Personality Test, Index of Names, and Subject Index. Each of the four parts have a number of chapters devoted to specialized aspects of the general area. This arrangement makes it possible for the reader to find the information he wishes in a minimum time. Each part contains graphs, pictures, and tables appropriate to the subject matter. The results of controlled research are reported with the statistical significance. References are identified at the end of each chapter. This book is thus a valuable source of information. In addition to this wealth of information, it should be mentioned that the book is written in a succinct style which is easily read and understood. It is free from the gobbledy-gook which sometimes obscures the meaning of the author and makes the material difficult to understand. This book can be used profitably by professional workers in the fields of Audiology, Speech Pathology, Special Education, and Psychology. Many chapters can be read with interest and profit by workers in other areas and also by lay individuals. —M. Shere.

797. PECK, ROBERT F., HAVIGHURST, ROBERT J., COOPER, RUTH, LILIENTHAL, JESSE, & MORE, DOUGLAS. *The Psychology of Character Development*. Wiley, 1960. xix+267 p. \$6.50. This is the second report of two investigations of moral character, the first of which was Havighurst and Taba's "Adolescent Character and Personality." While this latter book was concerned with character reputation, the present book is a study of character development and its personality correlates during adolescence. A sample of 34 children, 17 boys and 17 girls, was drawn from a total population of 120 children born in 1933 in a small midwestern community called Prairie City. The collection of data began in 1943 when the subjects were 10 years of age and continued through 1950. Over 40 different measuring instruments were used to obtain information about character, personality, peer group influences, community influences, and family influences. To help answer questions concerning character and to give the research team a conceptual scheme for the analysis of the data, a motivational theory of character was developed and is presented in the first chapter. After the second chapter that describes the research sample and the community of Prairie City, subsequent chapters are: Case Studies of Three Character Types; Personality and Character; Family Influences on Personality and Character; Moral Character and the Peer Group; Sources of Moral Values in the Social Environment; The Consistency of Moral Character through Time; Summary; and Some Implications and Prospects. The motivational theory presents five character types: the Amoral, the Expedient, the Conforming, the Irrational-Conscientious, and the Rational-Altruistic. Five aspects of personality are considered as correlates of moral character: "the perceptual and cognitive system; the personality structure; attitudes toward other people; and

the self-concept system, including the person's own rationale for his behavior." These five aspects of personality are subdivided into more than 30 characteristics. In general, the results show that family influences are the most important in the development of character. The authors say, "the general conclusion seems to be inescapable, the child's character is the direct product, almost a direct reproduction, of the way his parents treat him. As they are to him, so he is to all others." The principal variables in this relationship are love and discipline. The influence of the peer group and the community are important as supports of character formation. —L. Harrell.

798. STERN, CURT. *Principles of Human Genetics* (2nd Ed.) Freeman, 1960. 753 p. \$9.50. Textbooks which are really readable, clear, authoritative, interesting, and sympathetic are precious rarities in any curriculum. The first edition of this book, issued in 1949, was one of them, and the second edition, noted here, is in some ways better than the first. Knowledge of human genetics has increased much in the 11 years between the editions, and this book is some 130 pages longer than its predecessor, despite certain passages having been shortened or omitted. The chief additions relate to biochemical genetics, blood groups as examples of multiple allelism, the detection of linkage, sex determination and the appearance and counting of human chromosomes, the origin of mutation, the genetic hazards of radiation, the genetic background of animal behaviour, and discussions upon medical genetics, and the interaction of heredity and environment. Stern has in particular given added attention to the effects of heredity and environment in the control of scores on intelligence tests. He discusses at length the relation of IQ with sibling number and socioeconomic class, and whether or not dysgenic selection for low IQ is proceeding in the population. In these matters, as in others, he takes a very balanced but firm view "... there is no denial any more that much of the difference in intelligence-test performance by members of different groups is due to non-genetic factors ... if, however, as seems very likely to me, there are also genetic causes, then such causes must be accepted regardless of the misuse to which the resulting conclusion ... may be subjected. A fact cannot be denied on the grounds that it may be misused." Many students of human genetics, including the reviewer, owe a great debt to Stern for the lucidity and balance of his text. —J. M. Tanner.

799. STERN, H. H. *Parent Education: An International Survey*. Hamburg: UNESCO, 1960. vi+163 p. DM 4.00. (Univer. of Hull, England, 6/6d) The purpose of this book is to give a broadly defined overview of the present status of parent education and new developments in this field. This the book does well, even though, due to the breadth of the topic, it is by necessity limited in depth. In the introductory part it is shown how the converging trends of thought in child psychology, psychoanalysis, social psychology, social anthropology, and psychopathology have contributed to a better understanding of the importance of parents in the mental development of their children. Parents and their children are so intimately related that parent education seems to be the logical answer to effective guidance of the development of children. This need for parent education has increased due to the social changes which have affected parenthood. In the second part the survey deals with major world trends which have emerged, such as the training of parents of young children, the relation between parent and school, publications and mass media, and schools for parents, their methods and contents. Since the quality of parenthood is affected by experiences during childhood, parent education must begin during childhood. In the third part the author describes and contrasts the outstanding features of parent education in four countries, USA, France, West Germany, and Great Britain. In the fourth part doubts and difficulties are considered. For example, child development findings still undergo changes in interpretation. The relative importance of various causative factors in the development of personality shows a range of probability from highly speculative propositions to fairly well established facts and principles. As might be expected, countries show a great deal of variation in methods and emphasis. Content of parent education is not limited to preparation for marriage, sex education, child care, housecraft, and related subjects, but it is recognized that

the teaching of art, language, literature, etc., may contribute to a basic understanding of human actions, motives, thoughts, and feelings. "The main conclusion of this study is that there is a need for an educational policy concerning parenthood and for systematic educational efforts." —R. E. Muuss.

800. SUPER, DONALD E., & OVERSTREET, PHOEBE L. (In collaboration with Charles N. Morris, William Dubin, & Martha B. Heyde) **The Vocational Maturity of Ninth Grade Boys.** Bur. Publications, Teachers Coll., Columbia Univ., 1960. xii+212 p. \$5.25. This second in a series of the Career Pattern Study Publications is concerned mainly with the measurement of vocational maturity and correlates of vocational maturity, using a core sample of 105 boys from Middletown, New York. 27 variables, scored from interview data, combine to form five indices of vocational maturity: Concern with Choice, Acceptance of Responsibility, Specificity of Information, Specificity of Planning, and Use of Resources. The last index is considered to be of only marginal adequacy, according to the criteria established by the authors. A factor analysis of the 27 variables indicated 5 factors which accounted for 38% of the variance, these 5 factors suggesting that vocational maturity in the ninth grade consisted of one general factor, Planning Orientation, and 3 group factors oriented to time in the life span: The Long View Ahead, The Short View Ahead, The Intermediate View. A fifth factor was Independence of Work Experience, but this was not related to any of the measures deemed adequate by the authors. The 28 correlates of vocational maturity studied included, among others, IQ, socioeconomic status, age, birth order, peer acceptance, level of aspiration, family relationships, and psychological adjustment. The significant correlates of vocational maturity indicated that intellectual and cultural stimulation, mental ability, aspirations for higher socioeconomic levels, and achievement in activities were positively related to vocational maturity. Included in the monograph are extensive data on the methods of measurement employed, reliabilities, and frequency distributions. Careful, qualifying statements concerning the limitations of the generalizations to be made, the relatively low significant correlations, and the need for further research caution the reader throughout the publication. The implications for education and guidance which conclude the monograph should be of interest to all those concerned with the practical problems of vocational counseling. For those interested in vocational research methodology the monograph will be a useful resource. —F. D. Horowitz.

801. TOMAN, WALTER. **An Introduction to Psychoanalytic Theory of Motivation.** Pergamon Press, 1960. x+353 p. \$9.00. The view advanced is that psychoanalytic theory is the most comprehensive and coherent available. Here is an attempt to correct the overdramatization of psychoanalysis and to demonstrate its basic common sense. The author's qualifications for this undertaking include psychological and psychoanalytical training (Vienna Institute for Psychoanalysis) and experience in Europe and the United States. The resultant text is a quite personal statement by the author but clearly within the context of "Freudian Psychology." Part I, "Conceptual Introduction," develops psychoanalytic theory, placing prime emphasis around the concepts of desire, cathexis, and counter-cathexis. Desire is the broad term for the full and active experience of really wanting something. Cathexis is equated with learning in a general sense. Inability to achieve satisfaction of original desires leads to the formation of "substitute desires" which are conceived as being on a continuum in terms of nearness to the original desire. Counter-cathexis or defense is the "unlearning of conditions under which given desires can no longer be satisfied." Its main function is the prevention of anxiety which in turn is the automatic consequence of excessive deprivation. Aggression is presented as an aspect of desires similar in its primitiveness to anxiety. These are the primitive desires that are acted upon. The concept of a "death drive" is rejected. Libido is presented as the psychological fuel of the person, and a case is made for considering it to be of a constant quality. Under the heading of "Primal Desires," aspects of psychosexual development are discussed. In Part II, "The Theory at Work," the first five chapters approximate a psychoanalytic theory of development going from the first year of life through puberty and adolescence. Then chapters on Choice of Professions, Marriage and Parenthood,

A System of Psychopathology, and Psychotherapy follow. Each of these chapters is quite insightful. A particularly good development of family constellations is presented. The system of psychopathology is developed around the concept of regression and invokes the theoretical concepts of substitution continua, cathexis, and counter-cathexis. "... the psychoanalytic system of psychopathology distinguishes comprehensively all major forms of ('nonorganic') psychopathology by a set of aspects the most important of which are: (a) the level of motivational functioning, (b) the predominant desires, (c) the principal fears, and (d) the character of the most elementary object-relationships." The chapter on psychotherapy presents some indications as to what benefits a person may derive from psychotherapy. Toman uses this chapter as a cathartic vehicle to unburden himself about what he perceives as abuses of psychotherapy. Psychoanalysis itself is downgraded considerably and general psychotherapy emphasized. His opinion is that a prerequisite of proper training in psychotherapy is medical school "which is not to say that medical school prepares anyone for psychotherapy. Yet it is a more reliable and grinding test of the student's sincerity than other avenues such as clinical psychology, social work, teaching. . . ." In a number of places mathematical notation is introduced to indicate the possibility of greater precision. The success of this procedure is quite doubtful. The goal of the author to present a coherent system is mostly achieved, although his major terms of desire and cathexis are so general as to make the system much less precise than it appears. Experimental work in the psychological literature on the value and possibility of substitution for original desires should have been considered since this concept is so central to the exposition. Despite the personal approach and use of different or redefined terminology, Toman essentially comes out in familiar territory. For this reason one might prefer to use a number of other books as a text and utilize this book as refreshing supplementary material. There is much here that is of interest to persons in child development. —J. Siller.

802. WHITE, RALPH K., & LIPPITT, RONALD O. Autocracy and Democracy. Harper, 1960. vii+330 p. \$6.00. The Lewin, Lippitt, and White studies on authoritarian, democratic and laissez-faire group atmosphere, conducted in 1938 in Iowa have become classics in group dynamics and need no review. From these original studies the authors develop their ideas about autocracy and democracy. In the first part, they describe quantitatively and qualitatively what actually happened in the experiments; much of this material had been published in the psychological literature in the early forties. In the second part the various social climates are analyzed qualitatively; in this section the reader will find a great deal of the actual record. The third part reports detailed case study material of two boys who contributed to and of two boys who hindered the development of democracy. In particular, parental warmth and firmness are investigated as variables facilitating the growth of conscience. Parental attitude is related to peer group behavior in the experiment. Finally, the authors attempt theoretical interpretations of what happened in the experiment, relate their findings to relevant studies that have been conducted since (e.g., a replica of the Lewis, Lippitt, and White studies in Japan), and make implications for small group behavior as well as analogies between specific incidents in the experiment and historical and political situations. For example, an analogy is seen between Bill's chicanery in order to get a vote and the Communist movement (p. 252). Critics have stated that the Iowa studies have already been "milked dry," that the findings have been generalized far beyond the scope of the original experiments; this book will give them further ammunition. On the other hand, this book analyzes on a theoretical level rather effectively the dynamics of democratic and autocratic groups, their advantages and disadvantages. The authors do not interpret their findings as an unconditional endorsement of the democratic group. They warn that the belief "that democracy has proved superior to autocracy in efficiency" is based on a misreading of the Iowa experiments. The issue of "social climate" will be kept alive by this book, and anyone citing the Iowa studies might find a great deal of new and insightful material in this book. One invariably has to ask, Why a lag of over 20 years between the actual experiments and a publication of its theoretical implications? —R. E. Muuss.

803. WOLFF, PETER H. *The Developmental Psychologies of Jean Piaget and Psychoanalysis*. International Universities Press, 1960. 181 p. \$3.00. (Psychol. Issues Monogr. No. 5) The recent resurgence of interest in the works of Jean Piaget is a revival based on the last decade's concern with theories of development. Psychoanalytic ego psychology has demonstrated a similar shift in emphasis in its exploration of infancy in the search for a description of the nature and development of inborn ego mechanisms. While Piaget's works are more a theory of knowledge than of development, they share in common with psychoanalysis a series of basic premises about the inborn structural basis of development and its biologically rooted functions. What Wolff designates as Piaget's sensorimotor development is presented in six stages. A sample of Piaget's observations as well as his conceptualizations referring to them is presented for each stage. For each stage, Wolff compares Piaget's formulations with the corresponding formulations of psychoanalysis. These comparisons and their discussion attempt to establish those instances where the two theories converge and can be integrated, where apparently irreconcilable contradictions exist, and where further research and observations might solve theoretical paradoxes. As Wolff points out, "It must be remembered that the two theories start out from different premises, are intended to account for different aspects of behavior, and collect data by methods which make their observations not directly comparable." In the areas of drive-determined and affective behavior and frustration, for example, relevant observations from Piaget's sensorimotor theory were not available. Despite the limited "fit" of the two theories, their comparison serves to clarify both and to delineate sharply the basic problem of constructing an adequate theoretical and empirical formulation of the nature of development. —E. B. McNeil.

Books Received

- BALLER, WARREN R., & CHARLES, DON C. *The Psychology of Human Growth and Development*.** Holt, Rinehart & Winston, 1961. xiii+432 p. \$5.50.
- BEIZMANN, CÉCILE. *Le Rorschach chez l'Enfant de 3 à 10 Ans*.** Neuchâtel, Switzerland: Delachaux & Niestlé, 1961. 295 p.
- BENDA, CLEMENS E. *The Image of Love*.** Free Press, 1961. viii+206 p. \$5.00.
- BERGLER, EDMUND. *Curable and Incurable Neurotics*.** Liveright, 1961. 471 p. \$6.95.
- BROGAN, PEGGY, & FOX, LORENE K. *Helping Children Read*.** Holt, Rinehart & Winston, 1961. xi+330 p. \$3.75.
- CHOISY, MARYSE. *Psychoanalysis of the Prostitute*.** Philosophical Library, 1961. 138 p. \$4.75.
- CHRISTIANSON, HELEN M., ROGERS, MARY M., & LUDLUM, BLANCHE A. *The Nursery School: Adventure in Living and Learning*.** Houghton Mifflin, 1961. xvii+302 p. \$4.25.
- CHURCH, JOSEPH. *Language and the Discovery of Reality*.** Random House, 1961. xviii+245 p. \$4.00.
- COLEMAN, JAMES S. *The Adolescent Society*.** Free Press, 1961. xvi+368 p. \$6.95.
- CROSSE, V. MARY. *The Premature Baby*. (5th Ed.)** Little, Brown, 1961. viii+266 p. \$7.00.
- DALTON, ROBERT H. *Personality and Social Interaction*.** Heath, 1961. vii+381 p. \$6.00.
- DeHAAN, ROBERT F., & HAVIGHURST, ROBERT J. *Educating Gifted Children*. (Rev. Ed.)** Univer. of Chicago Press, 1961. x+362 p. \$5.00.
- FREEMAN, LUCY, & GREENWALD, HAROLD. *Emotional Maturity in Love and Marriage*.** Harper, 1961. xii+255 p. \$4.95.

- GLIDEWELL, JOHN C. (Ed.) **Parent Attitudes and Child Behavior.** Thomas, 1961. xx+253 p. \$8.50.
- HALL, ROBERT A., JR. **Sound and Spelling in English.** Chilton, 1961. 34 p. \$1.00.
- JOHNSON, WALTER F., STEFFLRE, BUFORD, & EDELFELT, ROY A. **Pupil Personnel and Guidance Services.** McGraw-Hill, 1961. xi+407 p. \$6.50.
- MACKIE, ROMAINE P., & CONNOR, FRANCES P. **Teachers of Crippled Children and Teachers of Children with Special Health Problems.** U. S. Dept. Hlth, Welf., & Educ., 1961. xi+124 p. \$.50. (Bulletin 1960, No. 21)
- QUIGLEY, STEPHEN P., & FRISINA, D. ROBERT. **Institutionalization and Psycho-Educational Development of Deaf Children.** Council for Exceptional Children, 1961. 49 p. \$2.00.
- ROTHSTEIN, JEROME H. (Ed.) **Mental Retardation: Readings and Resources.** Holt, Rinehart & Winston, 1961. xii+628 p. \$6.75.
- SHERE, MARIE ORR. **Speech and Language Training for the Cerebral Palsied Child at Home.** Danville, Ill.: Interstate, 1961. 40 p. \$1.00.
- SHIPLEY, JOSEPH T. **The Mentally Disturbed Teacher.** Chilton, 1961. 404 p. \$5.00.
- SIEGEL, ALBERTA ENGVALL. (Ed.) **Research Issues Related to the Effects of Maternal Employment on Children.** University Park, Pa.: Social Science Res. Center, 1961. iii+60 p.
- STEIN, MORRIS I. (Ed.) **Contemporary Psychotherapies.** Free Press, 1961. x+386 p. \$7.50.
- TANNER, J. M. **Education and Physical Growth.** Univer. of London Press, 1961. 144 p. 12/6d.
- THORNDIKE, ROBERT L., & HAGEN, ELIZABETH. **Measurement and Evaluation in Psychology and Education.** (2nd Ed.) Wiley, 1961. viii+602 p. \$7.25.
- VULLIAMY, DAVID G. **The Newborn Child.** Little, Brown, 1961. vii+163 p. \$6.00.
- WATSON, GOODWIN. **What Psychology Can We Trust?** Teachers Coll., Columbia Univer., 1961. 19 p. \$.40.
- WHITE, MARY ALICE, & HARRIS, MYRON W. **The School Psychologist.** Harper, 1961. vii+431 p. \$6.00.
- Behavioral Approaches to Accident Research.** New York: Ass. Aid Crippled Children, 1961. ix+178 p. \$1.50.
- Consumers Union. **The Medicine Show.** Simon & Schuster, 1961. 250 p. \$3.95.
- Expert Committee on Maternal and Child Health. **Public Health Aspects of Low Birth Weight.** Rep. No. 3. WHO Tech. Rep. Series, 1961. No. 217. 16 p. \$.30.
- Soviet Psychology: A Symposium.** Philosophical Library, 1961. 109 p. \$3.75.

Author Index, Vol. 35, 1961

- Aaron, I. E. 197, 198
Abernathy, E. R. 418
Abramson, A. S. 712
Acker, M. 407
Adamashvili, N. G. 648
Affleck, D. C. 98
Ager, J. A. M. 62
Ahvenainen, E. K. 167
Aldrich, F. R. 168
Allen, J. E. 152
Allender, B. 557
Allison, A. C. 538
Altemus, L. A. 265
Altman, I. 762
Alvarez-Amezquita, J. 177
Amatora, Sr. M. 75, 338
Ames, L. B. 76, 77, 339
Ames, M. D. 8
Andersland, P. B. 462
Anderson, A. S. 318
Anderson, C. M. 634
Anderson, E. C. 617
Andry, R. G. 229
Angrilli, A. F. 649
Ansaldi, N. 278
Ansbacher, H. L. 207
Apgar, V. 56
Asher, J. W. 650
Astington, E. 744
Athavale, V. B. 9
Auricchio, S. 33
Ausubel, D. P. 214
Avakian, S. A. 463
Avery, M. E. 732

Babska, Z. 78
Baer, D. M. 340
Bagabaldo, Z. B. 598
Bailey, M. J. 522
Baker, C. T. 397
Baker, J. W. 464
Baker, P. T. 539
Bakwin, H. 733
Baldwin, A. L. 677
Bandura, A. 584
Bangs, T. E. 341
Banta, T. J. 665
Barba, P. S. 169
Bardet, C. 342
Baril, C. 34
Barnard, J. W. 343
Barnes, J. B. 230
Barnes, J. M. 177
Barnett, C. D. 79
Barnett, H. L. 12
Baronchelli, G. 596
Barter, R. A. 635

Bartlett, C. J. 555
Bartram, J. B. 711
Batson, R. 173
Baumann, M. L. 296
Baumeister, A. A. 555
Bayer, L. M. 231
Bayley, N. 231, 435, 568, 702
Beard, R. M. 80
Beaudry, P. 153, 512
Becher, B. A. 651
Beck, S. 188
Becker, W. C. 504
Béhar, M. 631
Behringer, R. D. 777
Beliaev, M. F. 199
Bell, N. W. 585
Bell, R. Q. 435
Bell, R. W. 286
Benirschke, K. 170
Bennett, H. L. 679
Benton, A. L. 232
Berg, J. M. 183
Berkowitz, P. H. 233
Berman, P. H. 323
Bernstein, N. 299
Berrien, C. 56
Berry, H. K. 730
Bettelheim, B. 465
Bhatt, R. V. 10
Bhojraj, S. 778
Bialer, I. 344
Bianchi, P. 290
Bick, E. M. 35
Bijou, S. W. 345, 423
Bilous, C. B. 679
Binning, G. 595
Birch, H. 85
Bjerstedt, A. 81
Black, F. L. 36
Blake, K. A. 112
Blažek, F. 266
Bledsoe, J. C. 200
Bloodstein, O. 346, 347, 348
Bloom, I. 210
Blum, A. 410
Bodwin, R. F. 82
Boesch, E. E. 215
Boissier, M. 745
Bolduc, T. E. 349
Boll, E. S. 779
Bordt, D. E. 307
Borová, E. 266
Borstelmann, L. J. 652
Bosma, J. F. 479
Bossard, J. H. S. 779

Bouchier, I. A. D. 647
Bouisset, S. 83
Bower, E. M. 466, 780
Bowser, D. C. 516
Boyer, P. A. 63, 187, 307
Bradburn, E. 556
Bramley, P. 184
Breckenridge, M. E. 234
Brehm, J. W. 653
Brekstad, A. 671
Brightman, I. J. 524
Broderick, E. J. 734
Bronson, W. 402
Brooks, R. V. 37
Brooks, S. 654
Brown, A. W. 746
Brown, G. C. 308
Brown, J. L. 154
Brown, K. B. 502
Brown, R. 125
Bruck, M. 82
Bruck, I. 38
Brzezińska, Z. 655
Budoff, M. 350
Budohoska, W. 656
Buehler, J. A. 371
Burchinal, L. G. 482
Burns, R. C. 467
Byrne, M. C. 557

Caditz, S. B. 468
Caldwell, B. M. 216
Caligara, F. 632
Calisti, L. J. P. 39
Calkins, L. A. 295
Calonghi, L. 596
Campbell, J. D. 569
Campbell, W. J. 570
Capobianco, R. J. 112, 561
Carrizo Palma, H. 187
Carroll, E. E. 219
Carruthers, M. F. 540
Carter, G. H. 353
Castaneda, A. 351
Cattell, R. B. 84
Chaiken, N. 166
Chapman, A. M. 469
Charles, D. C. 352
Check, J. 393
Chess, S. 85
Childs, D. S., Jr. 321
Chitre, R. G. 20
Chun, R. W. M. 86
Claireaux, A. E. 40
Clark, Arthur I
Clark, A. C. L. 618
Clark, A. W. 763

- Clark, W. K. 41
 Clarke, H. H. 353
 Clayton, G. W. 309
 Cleveland, W. W. 310
 Clifford, E. 571
 Cochran, J. 570
 Cockerille, C. E. 516
 Coekin, M. 155
 Coelho, G. 619
 Cohen, M. M. 39
 Cohn, R. 641
 Cole, L. 235
 Coleman, J. H. 747
 Coleman, J. S. 572
 Coles, B. L. 636
 Collier, H. L. 146
 Collins, C. C. 716
 Combes, M. A. 41
 Connor, D. V. 764
 Consalvi, C. 507, 768
 Cooper, R. 797
 Coopersmith, S. 657
 Cope, I. 597
 Copetas, F. G. 516
 Coppen, A. 43, 156
 Cordero, N. 598
 Cornelison, A. R. 573
 Cornoni, J. 282
 Corotto, L. V. 470, 471
 Corrigan, G. E. 267
 Coventry, M. B. 319
 Cowell, C. C. 713
 Cowie, V. 42, 156
 Cox, F. N. 354
 Crabbe, W. A. 43
 Craig, W. S. 637
 Crandall, V. J. 87, 355, 397, 658
 Cratty, B. J. 659
 Cromwell, R. L. 344, 356
 Crosswhite, L. H. 551
 Crosti, P. F. 290
 Cureton, T. K. 523
 Curnutt, R. H. 470, 471
 Curtis, G. W. 170
 Curtiss, P. H., Jr. 311
 Cytryn, L. 157
- Daeschner, C. W., Jr. 18
 Dahlin, D. C. 319, 330
 Daily, J. M. 466
 Dalton, K. 472
 Damborská, M. 357
 Damon, A. 285, 599
 Dancaster, C. P. 38, 44
 D'Andrade, R. 136
 Darley, F. L. 415, 417
 Daryn, E. 473
 Davidson, R. S. 358
 Davidson, K. S. 257, 359
 Davidson, W. M. 541
 Davies, H. B. 201
 Day, H. P. 158
 de Haas, J. H. 782
 Delacato, C. H. 314
 Delagi, E. F. 712
- de Majo, S. F. 312
 Demangeon, M. 660
 Denhoff, E. 781
 Dennis, W. 360, 661, 662, 714
 Denny, J. V. 166
 Densen, P. M. 178
 Dent, S. J. 335
 Dentler, R. A. 574
 Desmond, M. M. 18
 De Toni, E., Jr. 11
 Deutschle, R. M. 638
 Deutsch, C. P. 480
 Deutsch, M. 480
 DeWeerd, J. H. 321
 de Wijn, J. F. 782
 DeYoung, V. R. 45
 Diamond, E. F. 45
 Diedrich, W. M. 557
 Dieliauskas, V. J. 88
 Dingman, H. F. 327, 448, 582
 Distler, L. 129
 Dittmann, A. T. 223, 474
 Dodwell, P. C. 361
 Doehring, D. G. 89, 362
 Dokládál, M. 268
 Doležalová, J. 639
 Doll, R. 313
 Doman, G. 314
 Doman, R. J. 314
 Donnelly, A. J. 188
 Dow, C. W. 90
 Downing, R. W. 715
 Draguns, J. G. 663
 Dreger, R. M. 363
 Dressler, W. H. 318
 Drexler, H. G. 441
 Dreyer, A. S. 202
 Drillien, C. M. 159
 Driscoll, S. G. 170
 Droulard, K. E. 553
 Dufty, N. F. 364
 Dunsford, I. 46
 Durkin, D. 91
 DuShane, J. W. 55
- Easson, W. M. 475
 Edelman, C. M. 12
 Edens, M. 716
 Egidius, H. 748
 Eichenwald, H. F. 47
 Eiger, M. S. 323
 Eisenberg, L. 157
 Elkind, D. 664
 El Koussy, A. H. 575
 Ellingson, R. J. 476
 Elliot, O. 481
 Ellis, N. R. 79
 Ellwood, P. M., Jr. 315
 Emery, F. E. 92
 Emery, J. L. 620
 Endler, N. S. 765
 Engel, M. 705
 Engel, W. J. 336
 Erikson, E. H. 783
- Ermacor, E. 290
 Eron, L. D. 665
 Erpicum, D. 93
 Ervin, S. M. 94, 666
 Escalona, S. K. 667
 Espenschade, A. S. 600
 Estes, B. W. 365
 Estvan, E. W. 236
 Estvan, F. J. 236
 Etteldorf, J. N. 287
 Eymann, R. K. 582
- Fabiato-Laisne, E. 749
 Fahel, L. S. 351
 Falek, A. 189
 Fales, M. H. 39
 Falkner, F. 601
 Farber, B. 237
 Farberman, I. 579
 Farnsworth, P. R. 586
 Farrell, M. J. 328
 Fassio, L. A. 47
 Feffer, M. H. 366
 Feldhusen, J. 393
 Fenton, A. K. 440, 516
 Ferber, B. 524
 Ferencz, C. 192
 Ferguson, A. D. 65
 Ferrell, C. 287
 Ferrier, P. E. 48, 299
 Ferster, C. B. 717
 Fichter, G. R. 516
 Fiedler, M. F. 565
 Fine, C. G. 565
 Fineberg, H. H. 525
 Fischer, A. E. 621
 Fischer, C. C. 784
 Fischer, L. K. 14
 Fischer, W. F. 456
 Fischer, R. L. 287
 Fish, B. 718
 Fisher, G. M. 367, 477, 478
 Fisk, F. 487
 Flanders, N. A. 203
 Flašarová, B. 17
 Flatz, G. 74
 Fleischmann, W. 287
 Fleisher, D. S. 288
 Fletcher, S. G. 479
 Fleurant, G. 750
 Fois, A. 289
 Fomicheva, T. V. 668
 Forbes, A. 184
 Forbes, G. B. 13, 269
 Forssman, H. 542, 543
 Forster, F. M. 86
 Foshee, J. G. 356, 704
 Foss, G. L. 544
 Foster, G. 666
 Francis, R. J. 95
 Frankel, E. 204
 Fraser, F. C. 61
 Freedman, A. M. 480
 Freedman, D. G. 481
 Freedman, D. S. 217

- Freedman, R. 217
 Freeman, M. 634
 Frost, B. P. 96
 Fuhrman, F. A. 243
 Fry, E. I. 270
- Gaard, R. A. 316
 Gairdner, D. 155, 618
 Galarneaux, A. F. 526
 Gallagher, J. R. 238
 Gallistel, E. 520
 Gallup, J. 269
 Gallwey, M. 677
 Gandevia, B. 622
 Gankova, Z. A. 97
 Gardner, D. B. 482
 Gardner, E. 239
 Garfield, S. L. 98
 Garn, S. M. 1
 Garner, A. M. 240
 Garrison, K. C. 205, 241
 Gartler, S. M. 185
 Gay, M. L. 506
 Geisel, P. N. 147
 Gellei, B. 68
 George, C. 751
 Getzels, J. W. 669, 766
 Ghent, L. 368
 Gibbs, E. L. 60, 289
 Gibbs, F. A. 60, 289
 Gibson, D. 153, 512
 Giese, A. C. 243
 Gilbert, A. 157
 Githens, J. H. 48
 Glassow, R. B. 670
 Goda, S. 369
 Goff, C. W. 587
 Goldstein, R. 138, 370
 Good, R. A. 179, 180, 181
 Goodenough, F. L. 242
 Goodman, H. O. 186
 Goodrich, D. W. 474
 Gordon, B. D. 317
 Gordon, J. E. 694
 Gordon, M. J. 483
 Gordy, E. 551
 Gorelick, J. 450
 Gourevitch, V. 366
 Graham, S. 588
 Grant, D. K. 320
 Grapko, M. F. 99
 Grasso, E. 290
 Gray, D. J. 239
 Gray, J. E. 49
 Green, O. C. 310
 Green, R. 484
 Greenbaum, M. 371
 Gregory, C. F. 41
 Griffith, A. H. 372
 Griffith, B. C. 100, 400
 Grolld, L. J., Jr. 485
 Gross, P. 102
 Grumbach, M. M. 337
 Grunebaum, M. B. 519
 Guenon, P. 752
 Guérin, F. 145
- Gulliksen, H. 785
 Gunasekara, D. B. 602
 Gurrslin, O. 489
 Guyer, E. J. 306
 Guze, S. B. 216
- Habich, H. 601
 Hackel, E. 186
 Haddad, E. J. 296
 Haddad, H. M. 291
 Hafner, A. J. 101
 Haggard, E. A. 671
 Hake, D. 125
 Hall, K. D. 335
 Hall, V. E. 243
 Halluoto, A. 171
 Halpern, S. 510
 Hamilton, N. K. 558
 Handlon, B. J. 102
 Hanlon, C. 103
 Hanninen, P. 297
 Hansman, C. F. 271
 Hanson, H. B. 318
 Hanvik, L. J. 318
 Haratani, T. 373
 Harnish, D. 641
 Härnqvist, K. 753
 Harper, P. A. 14
 Harris, D. B. 104
 Harris, I. D. 786
 Harris, T. 640
 Hart, T. A. 767
 Hartup, W. W. 105, 374
 Harvey, O. J. 768
 Harwood, E. 375
 Haskins, R. C. 479
 Hauck, H. M. 4
 Haupt, D. 202
 Havighurst, R. J. 797
 Havumaki, S. 203
 Hawkes, G. R. 482
 Haworth, M. R. 486
 Hayles, A. B. 319, 330
 Heczeko, P. 17
 Heffron, A. R. 88
 Heilbrun, A. B., Jr. 160
 Heimendinger, J. 603
 Heimstra, N. 420
 Hein, F. V. 719
 Heist, P. 376
 Hellmer, L. A. 504
 Hendry, L. S. 391
 Henry, F. M. 377, 378
 Hermelin, B. 130
 Hess, D. A. 106
 Hilgard, J. R. 487
 Hilkevitch, R. R. 576
 Hill, A. B. 313
 Hill, J. H. 644
 Hillebrand, M. J. 206
 Hillis, J. W. 422
 Hillman, R. W. 292
 Hoeflin, R. M. 589
 Hoekenga, M. T. 187
 Hoffman, L. W. 107, 488
 Holland, W. R. 559
- Holloway, H. D. 108, 379
 Holt, K. S. 672
 Holton, R. B. 148, 380
 Holub, J. 266
 Holzworth, A. 464
 Hoppert, C. A. 741
 Horáková, M. 623
 Horowitz, F. D. 381
 Hostomská, L. 623, 624
 House, B. J. 382
 Hsia, D. Y.-Y. 738
 Hsu, F. L. K. 720
 Hudson, M. 560
 Hugh-Jones, K. 738
 Hulse, F. S. 545
 Hungerford, D. A. 188
 Hunt, H. R. 741
 Hunt, R. G. 489, 746
 Huron, R. 83
 Hursh, J. B. 269
 Hurtig, M.-C. 461
 Hutchinson, J. G. 574
 Hutton, C. 490
 Hyske, I. 731
- Illingworth, R. S. 244, 739
 Imedadze, N. V. 109
 Ingram, C. P. 787
 Ingram, T. T. S. 161
 Inhorn, S. L. 552
 Ipsen, J., Jr. 734
 Irwin, O. C. 110, 383, 384
 Iscoe, I. 788
 Iwahara, S. 444
- Jackson, P. W. 669, 766
 Jackson, R. L. 306
 Jackson, W. P. U. 38, 44
 Jacobson, H. N. 15
 Jacobziner, H. 178
 James, A. T. 538
 James, H. 385
 James, J. A. 41
 James, L. S. 56
 Janowsky, C. C. 176
 Jarvick, L. F. 189
 Javier, B. V. 598
 Jebson, R. H. 320
 Jeffrey, W. E. 386
 Jegard, S. 111
 Jelliffe, D. B. 16
 Jelliffe, P. E. P. 16
 Jenkins, S. 491
 Jenne, W. C. 237
 Jersild, A. T. 245
 Jeurissen, A. 2, 3
 Jirátko, K. 17
 Johnson, Carol 387
 Johnson, C. M. 309
 Johnson, E. W. 320
 Johnson, G. O. 112, 561
 Johnson, R. C. 387
 Jones, Eve 789
 Jones, E. C. 525
 Jones, J. H. 332
 Jones, M. H. 113

- Jordan, E. P. 388
 Jungeblut, A. 747
- Kagan, J. 389, 397, 673
 Kalinina, L. G. 674
 Kallmann, F. J. 189
 Kamalanathan, G. S. 4
 Kaplan, B. 790
 Karlberg, P. 293
 Kates, M. 538
 Katkovsky, W. 87
 Katti, S. K. 50
 Katz, M. M. 294
 Kay, J. L. 18
 Keddie, J. A. G. 604
 Keimowitz, R. I. 207
 Keislar, E. R. 390
 Keitel, H. G. 641
 Kekwick, A. 19
 Keller, E. D. 105
 Kelliher, M. S. 675
 Kemmler, L. 218
 Kender, H. H. 114
 Kendler, T. S. 114
 Kendrick, P. L. 308
 Kennedy, R. L. J. 55
 Kennedy, W. A. 115
 Kephart, N. C. 246
 Kessel, I. 625
 Kessen, W. 391, 392, 453
 Kezheradze, E. D. 116
 Kidd, J. W. 492
 Kilpatrick, G. S. 332
 King, J. A. 481
 King, W. H. 117
 Kinsman, D. 173
 Kinzel, R. C. 321
 Kiria, G. V. 208
 Kirman, B. H. 183
 Kitchen, W. H. 642
 Kittiveja, C. 4
 Klausmeier, H. J. 393
 Klein, D. C. 721
 Kling, F. 711
 Knapp, M. E. 322
 Knobloch, H. 190, 320
 Knower, F. H. 118
 Knox, G. 51
 Knox, P. R. 335
 Knudson, A. G. 500
 Koch, M. A. 177
 Kohn, Martin 165
 Kohn, M. L. 219
 Konishi, T. 676
 Koppitz, E. M. 119
 Koprowski, H. 176
 Korttila, K. 627
 Kossov, B. B. 120
 Kotsevalov, O. 47
 Kottová, V. 624
 Kraugerud, T. 754
 Kraus, B. S. 272
 Kretschmer, E. 247
 Krieger, V. I. 642
 Kříž, Z. 5
 Krogman, W. M. 273, 740
- Krugman, S. 323
 Kruse, P. 670
 Kubala, A. L. 294
 Kulczycki, L. L. 172
 Kulkarni, B. S. 20
 Kunnas, M. 626
 Kuzmina, D. A. 121
 Kuzutani, T. 394
 Kvist, P. 755
- L'Abate, L. 122, 395
 Lachmann, F. M. 396
 Lafargue, O. 680
 Landkof, L. 1
 Langham, W. H. 617
 Lansky, L. M. 397
 Lantis, M. 791
 Larks, S. D. 52
 Larson, W. R. 729
 Lasker, G. W. 546
 Laulicht, J. H. 665
 Laycock, S. R. 248
 Leaper, P. M. 354
 Ledwith, N. H. 792
 Lehman, E. 493
 Lehman, H. 62
 Lehmann, I. J. 220
 Leiman, A. H. 398
 Lemkin, J. 389, 673
 Lennon, C. G. 53
 Leshin, G. J. 527, 528
 Lesny, I. 324
 Leutzendorff, A.-M. 391
 Levin, H. 677
 Levine, G. N. 577
 Levine, L. 734
 Levinger, G. 137
 Levinson, B. M. 769, 770
 Levy, D. M. 529, 590
 Levy, L. H. 686
 Lewis, L. 547
 Lewis, M. M. 249
 Lewis, T. L. T. 325
 Lewis, V. S. 578
 Lewis, W. H. P. 302
 Liamina, G. M. 678
 Liebert, R. S. 510
 Lighthall, F. F. 257
 Lilienthal, J. 797
 Lin, C. 605
 Linden, L. W. F. 627
 Linn, T. 286
 Lipman, R. S. 399, 400
 Lippitt, R. 107, 137, 802
 Lipsitt, L. P. 401
 Liverant, S. 113
 Livingston, S. L. 162, 329
 Livingstone, F. B. 548
 Livson, N. 274, 402
 Llewellyn, L. G. 579
 London, N. J. 494
 Longo, L. 52
 Longo, N. 358
 Longstreth, L. E. 123
 Loomba, S. D. 606
 Loosli-Usteri, M. 163
- Lord, E. M. 720
 Lorge, I. 189
 Lott, A. J. 771
 Lott, B. E. 771
 Lovaas, O. I. 403, 404
 Lowell, E. L. 534
 Luecking, E. M. 261
 Luke, J. E. 186
 Lund, C. J. 28, 29
 Lundervlood, A. 54
 Lundström, A. 275
 Luria, Z. 504
 Lux, E. 530
 Lynn, H. B. 326
 Lyons, H. A. 21
- Maas, J. W. 506
 McCandless, B. R. 679
 McConnell, T. R. 376
 McCord, J. 405
 McCord, W. 405
 McCracken, R. A. 562
 McCrory, W. W. 288
 McCullers, J. C. 406
 McDonald, E. T. 106
 McFarland, R. A. 285
 McGinnies, E. 762
 Macgregor, A. R. 250
 McKendick, T. 735
 McKusick, V. A. 24
 MacLeod, K. I. E. 172
 McNeill, J. D. 124
 McNeill, D. 274
 McNemar, Q. 586
 McReynolds, P. 407
 Maddison, T. G. 635
 Mahadeva, K. 602
 Mahajan, D. K. 22, 23
 Maher, B. A. 408
 Mahindru, S. N. 643
 Maillard, M. 680
 Malitskaia, M. K. 681
 Malpass, L. F. 125, 409
 Malvy, L. 680
 Manley, K. A. 24
 Marchal, G. L. 682, 683
 Mareh, M. M. 271
 Marschak, M. 684
 Marshall, D. A. 423
 Marshall, W. E. 451
 Martin, L. 387
 Martin, W. E. 126, 410
 Massé, G. 601
 Mathews, D. K. 276
 Matiushkin, A. M. 685
 Matsler, F. 376
 Matsuyama, Y. 373
 Matthews, C. G. 686
 Mattingly, D. 37
 Maw, E. W. 411, 412, 413
 Maw, W. H. 411, 412, 413
 Mecham, M. J. 127
 Mečir, M. 628
 Medinnus, G. R. 687
 Meili-Dworetzki, G. 251
 Merchant, S. M. 10

- Merrill, R. E. 173
 Merriman, J. B. 688
 Messick, S. 785
 Metzger, R. 128
 Meyer, H. H. 793
 Meyer, P. G. 644
 Meyer, W. J. 414, 440
 Mezei, T. C. 495
 Michaels, R. H. 177, 323
 Michener, W. M. 55
 Middleton, R. 221, 774
 Migeon, C. J. 310
 Milch, R. A. 191
 Milhaud, F. 689
 Millen, J. W. 71
 Miller, C. R. 448
 Miller, D. Y. 561
 Miller, H. C. 295
 Miller, J. L. 644
 Miller, R. L. 711
 Millis, J. 607, 608, 609
 Mills, I. H. 37
 Mills, S. D. 321
 Minami, Y. 373
 Misiak, H. 427
 Micczczak, T. 550
 Mithal, A. 620
 Moed, G. 715
 Mohr, D. R. 690
 Moll, K. L. 415
 Moloshok, R. E. 621
 Money, J. 484
 Monsees, E. K. 496
 Moran, R. E. 756
 More, D. 797
 Moreigne, F. 342
 Morgan, E. F., Jr. 209
 Mori, S. 416
 Moriarty, A. 667
 Morkovin, B. V. 563
 Morris, H. L. 417
 Morrison, M. M. 212
 Morrison, S. S. 174
 Morrow, W. R. 772
 Moser, H. M. 418
 Mosier, H. D. 327
 Moss, J. W. 419
 Moss, M. 419
 Motulsky, A. G. 549
 Mowrer, O. H. 794, 795
 Moya, F. 56
 Moyers, R. E. 34
 Muhler, J. C. 531
 Multari, G. 663
 Murawski, K. 550
 Murdoch, J. D. 597
 Murphy, G. 259
 Murray, W. I. 210
 Mussen, P. 129
 Muuss, R. E. 497, 498, 499
 Myers, J. L. 398, 494
 Myers, N. A. 398
 Myklebust, H. R. 796
 Nadkarni, M. G. 175
 Najarian, P. 714
 Natadze, R. G. 691
 Natterson, J. M. 500
 Neill, C. A. 192
 Nelson, S. E. 318
 Neubauerová, H. 357
 Neville, D. 564
 Newcomb, A. L. 738
 Newell, L. 1
 Newman, M. F. 487
 Newman, M. T. 277
 Newton, G. 420
 Nicola, P. 278
 Nimkoff, M. F. 221
 Niswander, J. D. 279
 Nordio, S. 11
 Norman, P. 156
 Nørstebø, S. 692
 North, W. C. 335
 Norton, M. C. 530
 Nováková, M. 610
 Nowell, P. C. 188
 O'Brien, D. 57
 O'Connor, N. 130
 Odom, R. 351
 Ogburn, W. F. 501
 Ogdon, D. P. 421
 Oñativia, A. 312
 O'Neil, R. 329
 O'Neill, J. J. 418, 422
 Opolon, I. 722
 Oppenheimer, E. H. 732
 O'Rahilly, R. 239
 Orlando, R. 423
 Osborn, W. J. 424
 Østby, H. 693
 O'Sullivan, J. B. 328
 Ourth, L. 502
 Overstreet, P. L. 800
 Owen, G. 46
 Oyer, H. J. 418, 422
 Pacaud, S. 689
 Paden, W. W. 58
 Pagano, J. M. 176
 Page, E. I. 131
 Paivio, A. 677
 Palermo, D. S. 425
 Palmer, C. D. 132
 Palmer, M. F. 503
 Palmer, S. 723
 Pare, C. M. B. 59
 Parikh, M. N. 20
 Parízková, J. 7
 Parnell, J. 567
 Parrott, N. A. 644
 Parsley, K. M., Jr. 757
 Partington, M. W. 645
 Pasamanick, B. 190
 Patau, K. 552
 Patel, A. S. 694
 Patterson, G. 133
 Paul, C. D. 516
 Pauli, L. 329
 Paulino-Gonzalez, C. M. 598
 Pawsat, R. 86
 Peck, J. R. 222
 Peck, R. F. 797
 Peffley, G. E. 531
 Pelon, W. 177
 Pelosse, J. L. 695
 Peltonen, T. 297
 Penny, R. K. 426
 Peppers, T. D. 57
 Permiakova, V. A. 199
 Pernot-Roy, M. P. 601
 Perrodin, A. F. 134
 Perry, N. 252
 Perstein, M. A. 60
 Peterson, D. R. 504, 505, 507
 Petursson, E. 724
 Picco, T. 21
 Pierce, C. M. 506
 Pietila, C. 407
 Pillsbury, S. G. 532
 Pinillos, J. L. 696
 Pinsky, L. 61
 Plotkin, S. M. 176
 Podoliak, L. G. 211
 Politzer, W. M. 625
 Pollack, M. 164
 Pollie, D. M. 101
 Polsky, H. W. 165
 Poncová, V. 533
 Pouliot, S. 427
 Powell, M. 757
 Preston, A. 87, 355
 Pritchard, S. A. 352
 Prokina, N. F. 697
 Prokopec, M. 280
 Prošek, V. 281
 Prothro, E. T. 773
 Prunty, F. T. G. 37
 Pryer, M. W. 79
 Pryer, R. S. 428
 Przetacznikowa, M. 725
 Pursell, A. R. 307
 Putney, S. 774
 Pyle, S. I. 282
 Quay, H. C. 505, 507
 Quie, P. G. 25
 Rabson, A. 658
 Rachman, S. 521
 Radcliffe, J. A. 84
 Rafferty, J. E. 135
 Rakušan, K. 5
 Ramos-Alvarez, M. 177
 Ramsey, M. L. 716
 Rand, P. 698
 Rao, K. U. 699
 Raper, A. B. 62
 Rapoport, M. 288
 Rarick, G. L. 95
 Ratcliff, J. W. 304
 Rauch, H. L. 579
 Raush, H. L. 223
 Ray, W. S. 253
 Read, M. 254

- Reardon, H. S. 296
 Reddy, W. J. 328
 Reed, R. B. 282
 Reed, R. C. 326
 Reese, H. W. 429, 430
 Reiman, R. C. 305
 Reisner, G. 286
 Rejlek, J. 26
 Reuchlin, M. 758
 Rhim, J. S. 177
 Rich, C. L. 289
 Rich, G. Q. 629
 Richardson, S. M. 176
 Rider, R. V. 14
 Rigillo, N. 33
 Ritholz, S. 591
 Roach, J. L. 489
 Roberts, P. D. 193
 Robertson, W. O. 736
 Robinault, I. 781
 Rodgin, D. W. 152
 Rodriguez-Busuego, M. 598
 Rooth, G. 632
 Rorke, M. 224
 Rosen, B. C. 136
 Rosen, J. 495
 Rosen, S. 186, 741
 Rosen, Sidney 107, 137
 Rosenberg, B. G. 431, 445
 Rosenberg, C. M. 515
 Rosenblith, J. F. 432
 Rosenstein, J. 362
 Rosenthal, D. 508
 Ross, A. O. 255
 Rothman, E. P. 233
 Rougier, G. 194
 Roušarová, J. 27
 Rowland, S. A. 330
 Rubin, L. S. 509
 Rudel, R. G. 510
 Ruebush, B. K. 257, 700
 Rushford, G. 534
 Russell, R. W. 699
 Ryan, A. J. 719
 Rychlak, J. F. 701
 Sabata, V. 628
 Sabin, A. B. 177, 323
 Sabiston, D. C. 192
 Sahhar, F. H. 553
 Sakula, J. 313
 Salmi, T. 297
 Samánek, M. 6
 Sandberg, A. A. 551
 Sandler, M. 59
 Sarason, S. B. 256, 257, 343, 359
 Sato, C. 433, 434
 Satoşkar, R. S. 20
 Schaefer, E. S. 435, 568, 702
 Schain, R. J. 726
 Schaller, W. E. 737
 Schecter, M. D. 511
 Schneiders, A. A. 592
 Scholz, C. 611
 Scholz, E. 611, 612
 Schonell, F. J. 224
 Schonfeld, S. 138
 Schooler, C. 580
 Schneider, E. 630
 Schutt, C. C. 512
 Schwarz, A. J. F. 63, 187
 Schwarz, V. 646
 Sclare, G. 64
 Scott, L. W. 327
 Scott, M. G. 727
 Scott, R. B. 65
 Scrimshaw, N. S. 631
 Searles, H. F. 593
 Seckel, H. P. G. 298
 Seidman, J. M. 258
 Seidman, S. B. 414
 Semenova, A. P. 703
 Semmel, M. I. 513
 Sénécal, J. 342, 601
 Serot, N. M. 436
 Seymour, R. B. 437
 Shaffer, G. K. 438
 Shanks, R. A. 588
 Shapiro, S. 178
 Shaw, C. R. 514
 Shaw, V. 276
 Sheldon, H. 192
 Shellhamer, T. A. 466
 Shepard, E. E. 331
 Shepard, T. H., II 299
 Shirkey, H. C. 730
 Shoemaker, D. J. 504
 Shooter, J. R. 451
 Showe, B. M., Jr. 418
 Shuster, S. 332
 Shwachman, H. 172
 Siegel, P. S. 704
 Sievers, D. J. 515
 Sigel, I. E. 139
 Silhar, A. S. 643
 Silver, H. K. 57
 Simková, M. 266
 Simmons, C. 619
 Sisson, T. R. C. 28, 29, 30
 Sjöstedt, S. 632
 Skard, A. G. 671
 Skinner, C. W., Jr. 333
 Skovránek, V. 535
 Smith, Alwyn 195
 Smith, A. J. 775
 Smith, B. K. 716
 Smith, D. C. 439
 Smith, D. W. 552
 Smith, K. 166
 Smith, M. A. 642
 Smith, O. W. 300
 Smythe, P. M. 647
 Snobl, O. 6
 Sobel, D. E. 66
 Sobová, A. 283
 Solley, C. M. 259, 705
 Solley, W. H. 284, 613
 Sommers, R. K. 440, 516
 Spencer, S. 317
 Spigland, I. 177
 Spiker, C. C. 148
 Spitz, E. B. 314
 Priestersbach, D. C. 417
 Stacey, R. S. 59
 Staffieri, F. P. 307
 Stahlman, M. 301
 Stallybrass, F. C. 334
 Stearns, P. E. 553
 Steer, M. C. 441
 Stein, G. H. 509
 Stein, M. D. 60
 Stein, Z. 225
 Steinberg, A. G. 742
 Steinhilber, R. M. 475
 Steisel, I. M. 166
 Stephen, C. R. 335
 Stephens, W. B. 222
 Sterling, T. D. 196
 Stern, C. 798
 Stern, H. H. 799
 Stern, J. 302
 Sternbach, R. A. 303
 Stevenson, H. W. 140, 406, 442, 443, 788
 Stevenson, N. G. 140
 Stewart, L. M. 581
 Stinson, P. J. 212
 Stolz, L. M. 141
 Stone, L. J. 565
 Stott, D. H. 706, 728
 Stoudt, W. H. 285
 Stowens, D. 260
 Straffon, R. A. 336
 Strakhov, I. V. 759
 Strand, G. T. 729
 Strang, L. B. 633
 Straub, W. J. 67
 Stuart, H. C. 282
 Sugimura, T. 444
 Sujaku, C. 279
 Sullivan, C. R. 330
 Sumption, M. R. 261
 Super, D. E. 800
 Susser, M. 225
 Sussman, L. A. 577
 Sutherland, B. S. 730
 Sutherland, J. M. 304
 Sutton, H. E. 514
 Sutton-Smith, B. 431, 445
 Sweetland, A. 363
 Sweeney, A. B. 84
 Swindler, D. R. 614
 Swyer, P. R. 305
 Sylvester, P. E. 615
 Tabouret-Keller, A. 446
 Takacs, E. 638
 Takahaski, S. 447
 Tarkin, A. S. 213
 Tanner, R. W. 21
 Tarjan, G. 448, 582
 Taylor, T. J. 223
 Teevan, R. C. 436
 Telek, A. 28, 29
 Terekhova, O. P. 707
 Terrell, G. 142, 449

- Therman, E. 552
 Thomae, H. 143
 Thomas, A. 85
 Thompson, C. W. 526
 Thurston, J. R. 517
 Tiffany, T. L. 505
 Tisdall, W. J. 566
 Tizard, Jack 419
 Tizard, J. P. M. 640
 Tobias, J. 450
 Toigo, R. 237
 Toman, W. 226, 801
 Trasler, G. 262
 Trefná, E. 27
 Trithart, A. H. 32
 Tucker, H. J. 311
 Tueber, H.-L. 510
 Tyler, B. B. 135
 Tyler, F. B. 135, 144
 Tyler, L. E. 242
 Tyler, R. M. 423
 Ulrich, D. N. 519
 Valentová, J. 623
 Valero, A. 68
 Valin, E. 760
 Vamberová, M. 7
 Van Leeuwen, G. J. 306
 van Sommers, P. 763
 Van Wyk, J. J. 337
 Vedra, B. 31
 Veenker, C. H. 536
 Vieth, I. 743
 Venables, E. C. 761
 Vetto, R. R. 69
 Vidal, A. 145
 Viitanen, I. 627
 Villee, C. A. 263
 Vincent, E. L. 234
 Visakorpi, J. K. 731
 Vogel, E. F. 585
 Vojta, V. 324
 Wagner, N. N. 518
 Waite, R. R. 257
 Walder, L. O. 665
 Wallace, E. M. 583
 Wallace, H. M. 537
 Wallach, M. A. 519
 Walters, J. 776
 Walters, R. H. 111, 451, 584
 Walton, J. N. 70
 Wannamaker, L. W. 25
 Wapner, I. 101
 Wapner, S. 790
 Ware, R. 449
 Warkany, J. 638
 Warren, Joel 323
 Warren, J. F. 742
 Warren, L. W. 742
 Warren, S. A. 146
 Warwick, W. J. 179, 180, 181
 Watrous, B. G. 720
 Watterson, R. L. 264
 Waxman, S. 299
 Webb, C. E. 567
 Weiland, I. H. 166
 Weiner, L. 178
 Weinstein, E. A. 147, 594
 Weir, M. W. 443
 Weiss, R. L. 32
 Wells, D. 114
 Wenar, C. 240, 708
 Werner, E. 520
 West, S. S. 227
 Whalen, J. W. 307
 Whalen, L. E. 28, 29, 30
 Wheeler, D. K. 452
 Whelpton, P. K. 217
 White, R. K. 802
 White, S. H. 148
 Whitman, R. M. 506
 Wight, B. W. 715
 Williams, E. J. 392
 Williams, J. P. 392, 453
 Williams, P. 376
 Williams, W. G. 149
 Wilson, D. J. 454
 Wilson, R. C. 772
 Windle, W. F. 15
 Wing, L. 439
 Winitz, H. 455
 Witherspoon, P. 228
 Witherspoon, Y. T. 554
 Witryol, S. L. 456
 Wohlwill, J. F. 457, 709
 Wolfensberger, W. 150
 Wolff, P. H. 803
 Wolpe, J. 521
 Woltmann, A. G. 486
 Wood, J. B. 276
 Woods, G. E. 739
 Woolam, D. H. M. 71
 Woolf, A. L. 72
 Wright, J. J. 305
 Wright, S. W. 582
 Wright, V. 458
 Wurtz, K. R. 459, 710
 Wyman, L. 734
 Yannet, H. 36, 726
 Yarrow, M. R. 569
 Yates, P. O. 73
 Ybanez, M. 329
 York, C. J. 63
 Zardini, V. 616
 Zarling, V. R. 318
 Zazzo, B. 460
 Zazzo, R. 461
 Zeaman, D. 382
 Zeichner, A. M. 578
 Ziller, R. C. 777
 Zimbardo, P. G. 343
 Zirbel, L. W. 63
 Znamenáček, K. 27
 Zook, E. A. 374
 Zucman, E. 314
 Zuelzer, W. W. 74
 Zuk, G. H. 151, 711

Subject Index, Vol. 35, 1961

- Abilities (see specific types)
 Abnormality (see specific examples)
 Abstraction, 121, 668
 Academic achievement, 376, 572, 755
 Acceptance, social, 577, 777
 Accident(s), 326
 poisoning, 735
 -proneness, 645
 Acculturation, 214
 Achievement
 academic, 376, 572, 755
 & birth order, 227
 Achievement (continued)
 & emotional disturbance, 213
 & family relations, 772
 & family size, 227
 intellectual, 658
 & intelligence, 210
 need, 87, 137, 657
 & personality, 207, 744
 prediction of, 209
 reading, 197
 school (see also specific subject areas), 753
 & security, 99
 sex differences in, 212
 Achievement (continued)
 spelling, 198
 under-, 204
 Aciduria, 185
 Acromegaly, 312
 Activity
 leisure time, 143
 level, 356
 out-of-school, 583
 Adaptation, 539, 545, 549
 Adipose organ, 19
 Adjustment
 adolescent, 469, 592
 & curiosity, 407
 family, 216, 224

- Adjustment (continued)
 & family relations, 763
 & family type, 225
 & preschool attendance, 746
 to physical disability, 715
 prediction of, 520
 sex differences in, 147
- Adolescent
 acculturative stress, 214
 adjustment, 469, 592
 aggression, 397, 470, 584
 attitudes, 575, 655
 character, 797
 control, 218
 development, 258
 friendship-affiliation, 390
 homebound, 491
 ideal self, 452
 impulse control, 402
 medical care, 238
 -parent relations, 218
 peer-image, 460
 personality, 592, 720
 pre-, 75
 preschizophrenic, 466
 problems, 228
 psychology, 235
 self-image, 460
 social isolation of, 722
 social maturity, 375
 sociopath, 478
 values, 375, 572
- Adrenal
 function, 328
 hyperplasia, 37
- Adult
 -child interaction, 166, 202
 expectations of children, 570
- After-images, 427
- Aggression
 adolescent, 397, 470, 584
 antecedents of, 403
 assessment of, 133
 childrearing antecedents of, 665
 fantasy, 447, 710
 frustration-, 111, 723
 hyper-, 579
 murderous, 475
 overt, 447
 reinforcement of, 404
 & social behavior, 474
- Alcaptonuria, 191
- Ambiguity, perceptual, 663
- Amino-acids (see specific acids)
- Aminoaciduria & mental subnormality, 731
- Analyses, behavior, 717
- Anatomy, 239
- Anemia
 hemolytic, 46
 sickle cell, 65
- Anencephaly, 334, 547
- Anesthesia & body temperature regulation, 335
- Anger (see Aggression)
- Animal behavior, 15
- Anoxia, fetal, 53
- Anthropometric surveys, 281
- Anthropometry (see also specific measures), 3
- Antibiotics (see specific substances)
- Antigens (see specific substances)
- Antihistamine (see specific substances)
- Anxiety
 & causal orientation, 499
 & concept formation, 400
 correlates of, 257
 & curiosity, 407
 & intelligence, 399
 manifest, 379, 693
 & mental subnormality, 686
 & personality, 395
 & reaction time, 425
 & suggestibility, 451
 test, 354, 359, 700
 & verbal behavior, 343
- Aphasia, 496
- Aptitudes
 association among, 689
 tests, 660
- Arthritis, 322
- Articulation, 441, 483, 561
 measures, 388
 & pitch discrimination, 440
 tests, 417
- Asphyxia, 31
- Aspiration
 career, 669
 level of, 699
- Assessment, developmental, 244
- Association
 free, 358, 651
 learning, 414
 word, 351
- Asymmetry, 275
- Athlete, skeletal maturity of, 273
- Attitude(s)
 adolescent, 575, 655
 authoritarian, 387
 childrearing, 160, 774
 consensus, family, 574
 ethnic, 124, 373, 394
 formation, 771
 maternal, 218, 462
 parent, 774
 social, 692
- Attitude(s) (continued)
 toward behavior problems, 591
 vocational, 581
- Audience stress, 677
- Audiometry, 370, 419, 422, 530
- Audiometry, localization, 86
- Authoritarianism, 387
- Authority, assertion of, 202
- Autism, 717
 infantile, 465, 726
 perceptual, 705
- Autocracy, 802
- Autokinetic effect, 765
- Autonomic function, 303
- Behavior
 aggressive, 403
 analyses, 717
 & brain weight, 554
 cognitive, 94, 389, 685
 curiosity, 411, 412, 413
 discrimination, 345
 disorders, 157, 233
 dominance, 495
 exploratory, 407
 expressive, 461
 goal-seeking, 439
 imitative, 432
 impulsive, 445
 maternal, 355, 435, 502, 568, 702
 & menstruation, 472
 & motivation, 355
 newborn, 391, 392
 problems, 504, 512, 591
 rigidity, 654
 sharing, 102
 social, 223, 474
 verbal, 343
 & nonverbal, 404
- Bender Visual Motor Gestalt Test, 119, 470, 471
- Bereavement, childhood, 487
- Bilingualism, 109
 & education, 559
 & intelligence, 769
- Bilirubinemia, hyper-, 40
- Biology, human, 740
- Birth, 31, 532
 order, 227, 580
 trauma, 73
 of twins, 17
 weight, 20, 607
- Blood
 coagulation, 48
 groups, 46, 548
 magnesium, 302
 serum, 636
 umbilical cord, 632
 uric acid levels, 625
 volume, 28, 29, 30

- Body**
 asymmetry of, 275
 build (see also Constitution, Somatotype)
 change in, 612
 determination of, 266
 & nuclear sex, 156
 parental & growth of
 offspring, 1
 & rate of development, 284
 & smoking, 599
 composition, 617
 localization, 510
 schema, 232
 size
 & climate, 277, 539
 & hip flexibility, 276
 temperature regulation, 335
 type & medical referrals, 749
- Bones** (see also specific bones)
 sodium content of, 13
 surgery, 587
 tumors, 319, 330
- Brain**
 cortical atrophy of, 647
 damage, 314, 318, 463, 467, 473, 510, 513, 515
 weight, 554
- Breast feeding, 643**
- Calcium-phosphorus metabolism, 11, 44**
- Cardiac function, 630**
- Care**
 child, 169
 foster, 262
 maternal, 159, 169
 medical, 238
 newborn, 27
- Caries (see Dental)**
- Cat-scratch disease, 179, 180, 181**
- Causal learning, 497, 498, 499**
- Central nervous system, 509**
- Cephalofacial dimensions, growth of, 265**
- Cerebral**
 function, 318
 lesions, 315
 palsy, 53, 54, 110, 127, 201, 371, 383, 384, 433, 434, 517, 739, 781
- Changes, secular, 279, 394, 595, 598, 605, 615**
- Character development, 797**
- Child**
 -adult
 differences, 89
 interaction, 166
- Child (continued)**
 care, 169
 development, 132, 234, 241, 779
 only, 102
 -parent relations (see Parent)
 perception of parents, 160, 363, 673
 psychology, 245
 rearing
 advice, 789
 antecedents of
 achievement motivation, 136
 aggression, 665
 attitudes, 160, 774
 practices, 159, 254, 568, 773
 therapy, 154, 157
 welfare, 171, 182, 778
- Childhood**
 accidental poisoning in, 735
 accidents, 326
 bereavement, 487
 duodenal ulcer in, 55
 head injuries in, 645
 leukemia, 74
 mortality in, 174
- Children**
 expectations of, 570
 feral, 465, 501
 foster, 594
 gifted, 416, 558, 562
 runaway, 165
- Children's Apperception Test (CAT), 350**
- Children's Manifest Anxiety Scale (CMAS), 101, 379, 399, 400, 686, 693**
- Cholesterol, serum, 24**
- Classroom**
 climate, 764
 discipline, 555
 learning, 668, 697
- Cleft palate, 106, 331, 417**
- Climate**
 & body size, 277, 539
 classroom, 764
 & culture, 539
 group, 764
 & growth, 607
- Clinical**
 child psychology, 255
 neurology, 232
 pediatrics, 250
- Coagulation, blood, 48**
- Cognitive**
 behavior, 94, 389, 412, 685
 development, 97, 131, 358, 361, 366, 663, 664, 666, 668, 674, 678, 709
- Cognitive (continued)**
 dissonance, 653
 function, 669
 learning, 681
 style, 766
- Color-form preference, 89**
- Communication, 762**
 media (see specific examples)
- Community influences, 583**
- Compliance, 203**
- Concept(s)**
 development, 80, 358
 formation, 100, 400, 654
 of justice, 91
 learning, 414
 number, 361, 709
 peer-, 460
 self-, 82, 460, 594
- Conception, quantity, 664**
- Conceptual preferences, 389**
- Conditioning, verbal, 404**
- Conformity, 762, 768**
 social, 694, 765
- Congenital**
 defects, 35, 43, 56, 61, 64, 313, 316, 331, 333, 552
 syphilis, 644
- Conscience (see also Guilt), 111, 459**
- Constancy, size, 691**
- Constitution & smoking, 599**
- Control, impulse, 402, 518**
- Convulsions, 637**
- Cooperation, 134**
- Cortical atrophy, 647**
- Counseling, school, 760**
- Cranofacial anomaly, 316**
- Creatine excretion, 23, 287**
- Creatinine excretion, 23**
- Creativity, 669, 766**
- Critical periods, 61, 286, 385, 481**
- Cross-cultural studies, 215, 342, 661, 675, 720, 773**
- Cultural**
 sub-, differences, 770
- Culture**
 & climate, 539
 & personality, 254, 720, 791
- Curiosity**
 & adjustment, 407
 & anxiety, 407
 behavior, 411, 412, 413
- Cystic fibrosis, 172**
- Deafness (see also Hearing), 89, 362, 418, 563, 565, 750, 796**
- Death, fear of, 500**

- Defects**
 congenital, 35, 43, 56,
 61, 64, 313, 316,
 331, 333, 552
 metabolic, 11, 44, 59
 speech, 161, 346, 347,
 348, 388, 415, 503
Defensiveness Scale for
Children (DSC), 359
Delinquency
 & parental pathology,
 229
 & personality, 505, 507
 prediction of, 520, 728
 proneness, 205
 & psychiatric status, 494
 & race, 494
 & recidivism, 494
 screening, 471
 & social class, 494
 treatment of, 468
Democracy, 802
Dental
 arches, 275
 caries, 32, 50, 186, 279,
 531, 741
 defects, 39
 development, 4, 614
 eruption, 4, 279, 533
 health, 168
 surveys, 533
Dentofacial growth, 638
Dependency
 need, 105
 & peer popularity, 679
Deprivation
 environmental, 360
 maternal, 714, 725
 parental, 487, 724
Development
 adolescent, 258
 character, 797
 child, 132, 234, 241, 779
 cognitive, 97, 131, 358,
 361, 366, 663, 664,
 666, 668, 674, 678,
 709
 concept, 80
 critical periods in, 61
 dental, 4, 614
 ego, 487
 fetal, 49, 56, 61, 64, 71
 intellectual, 725, 753
 language, 109, 676, 703
 moral, 91
 motor, 95, 190, 360,
 554, 670, 672, 718
 perceptual, 131, 259
 -motor, 396
 personality, 163, 215,
 251, 584, 788, 792
 physiological, 21
 prenatal, 272, 638
 psychological, 242, 727
 psychosexual, 484
 rate of, & body build, 284
Development (continued)
 of self-esteem, 211
 sex, 298, 337, 553
 skeletal, 271, 282, 606
 social, 713, 775
 speech, 249
Developmental
 assessment, 244
 disturbances, 718
 psychology, 586
 studies, 1, 2, 5, 7, 8, 18,
 21, 22, 23, 24, 26,
 28, 29, 51, 74, 76,
 77, 85, 91, 95, 102,
 103, 108, 113, 119,
 124, 131, 159, 164,
 251, 268, 270, 271,
 274, 278, 280, 282,
 284, 292, 339, 352,
 357, 358, 360, 361,
 365, 366, 368, 389,
 392, 414, 439, 443,
 457, 571, 595, 596,
 598, 601, 602, 603,
 604, 605, 608, 609,
 611, 612, 613, 616,
 619, 620, 622, 623,
 629, 634, 651, 652,
 663, 664, 666, 667,
 668, 670, 671, 676,
 678, 694, 702, 703,
 709, 775, 777, 782,
 792, 797
 theory, 803
Diabetes, maternal, 170,
621
Diagnosis, growth, 231
Diagnostic referral, 492
Diet (see also Nutrition)
 & dental caries, 32
Differences
 age (see Developmental
 studies)
 child-adult, 89
 geographical, 379
 individual, 85
 national, 22, 601, 603,
 608, 609, 695
 racial, 24, 190, 265, 494
 rural-urban, 220, 575
 sex, 24, 81, 102, 147,
 212, 338, 352, 359,
 374, 375, 387, 389,
 397, 402, 427, 431,
 445, 543, 576, 597,
 622, 629, 645, 652,
 658, 673, 679, 694,
 769
 social class, 159, 219,
 494, 577
 socioeconomic, 20, 39,
 190, 387, 568, 581,
 604
 subcultural, 770
Differential Language
 Facility Test, 515
Disability (see specific
examples)
Discipline
 classroom, 555
 parent, 571
 school, 205
Discrimination
 behavior, 345
 learning, 114, 130, 142,
 382, 386, 398, 401,
 410, 430, 444, 449,
 457
 pitch, 440
 right-left, 232
Diseases
 cat-scratch, 179, 180, 181
 & evolution, 549
 & growth, 610
 susceptibility to, &
 blood group, 548
Disorders (see also Prob-
lems)
 behavior, 157, 233
 developmental, 718
 emotional, 153, 158,
 213, 474, 489, 520,
 780
 hearing, 90
 speech, 90
Disturbances, emotional,
122
Diurnal variation, 458
Doll play, 710
Dominance, behavior, 495
Draw-a-Person Test (DAP),
82, 367
Drawings, 662
Dreaming & enuresis, 506
Dreams, 701
Drive theory, 400
Duodenal ulcer, 55
Dyplexia, 680
Eating habits & dental
caries, 32
Education (see also School)
 & bilingualism, 559
 health, 526, 536, 737
 mental health, 497, 498
 nursery, 746
 parent, 799
 physical, 438, 523
 psychology of, 206
 & racial integration, 140
 research in, 230
 special, 112, 201, 246,
 252, 261, 557, 558,
 560, 561, 562, 563,
 565, 748, 787
 technical, 761
 television in, 483
Ego
 development, 487
 identity, 508
 psychology, 783
 Einstellung effects, 654

- Electrocardiography, 52,
54, 60, 138, 297, 324,
476, 515
- Electroencephalography,
640
- Elimination, 155
- Embryology, 272
- Emotional disturbances,
122, 153, 158, 213,
474, 489, 520, 780
- Employment, maternal,
141, 488
- Endocrine glands (see
specific glands)
- Endocrinology, 10, 22, 37,
38, 64, 264, 287, 291,
299, 309, 310, 312,
328, 337, 523
- Enuresis & dreaming, 506
- Environment
nonhuman, 593
response to, 85
- Epiglottitis, 69
- Epilepsy, 162, 329
- Error of measurement,
377, 378
- Eruption of teeth, 4, 279,
533
- Erythroblastosis fetalis, 642
- Esthetic judgment, 682,
683
- Ethnic attitudes, 124, 373,
394
- Evolution, 545, 546, 548,
549
- Exceptional children, 53
brain-injured, 314, 318,
463, 467, 473, 510,
513, 515
cerebral palsied, 54, 110,
127, 201, 371, 383,
384, 433, 434, 517,
781
deaf, 89, 362, 534, 563,
565, 750
diagnostic referral of,
492
education of, 112, 201,
246, 252, 261, 557,
558, 560, 561, 562,
563, 565, 748, 787
emotionally handi-
capped, 780
epileptic, 162
gifted, 115, 261, 416,
558, 562
mentally subnormal, 57,
112, 125, 130, 146,
151, 152, 216, 222,
224, 225, 237, 252,
256, 289, 344, 367,
369, 382, 393, 423,
448, 524, 561, 566,
706, 711, 787
mongoloids, 42, 195,
302, 328, 513, 543
- Exceptional Children
(continued)
physically handicapped,
511, 557
slow learning, 246
speech defective, 347,
415, 503
- Excitability, neural, 509
- Expectations & frustra-
tion, 123
- Experience, early, 286,
385, 420, 481
- Experimental design, 253
- Experimenter, sex of, 652
- Exploratory behavior, 407
- Expressive behavior, 461
- Extension, 83
- Factor analysis of
attitudes, 84
parent attitudes, 363
personality, 505, 507
value-need patterns, 349
- Failure, 344, 657, 658
- Family, 585
adjustment, 216, 224
attitude consensus, 574
constellation, 226
crisis, 237
environment, 766
epidemics, 180
interaction, 136, 573
life, 254, 589
& mental illness, 578
ordinal position in, 580
pathology, 518, 519
relations, 485, 763, 772
resemblances, 44, 192,
193, 738, 742
roles, 219
sex composition, 217
size, 217, 227
types, 221, 225
- Fat (see also Obesity)
body, 617
estimation of, 269
& growth, 623
metabolism, 19
subcutaneous, 5, 7, 270
- Father
child's perception of,
363
-son relations, 129, 229
-son resemblances, 659
- Fatigue, 629
- Fear of death, 500
- Fecal incontinence, 155
- Feeble-mindedness (see
Mental subnormality)
- Feeding (see also Nutrition)
breast, 643
infant, 9, 18, 159, 306,
588
of preschools, 108
- Feral children, 465, 501
- Fertility, 553
- Fetal
anoxia, 53
asphyxia, 31
damage, 66
development, 49, 56, 61,
64, 71
electrocardiograms, 52
hemoglobin, 619
maturity, 597
- Fibrinolysis, 25
- Finger
nail growth, 292
spelling, 418
-sucking, 34
- Fitness, physical, 353, 438,
659, 675, 719
- Flexion, 83
- Fluoridation & dental
caries, 531
- Follow-up studies, 14, 55,
165, 225, 311, 441,
566
- Form
copying, 151
perception, 368
- Foster
care, 262
children, 594
- Fraternities, 577
- Free association, 651
- Friendliness, 556
- Friendship, 381
-affiliation need, 390
- Frustration, 123, 723
- Galactosemia, 646, 738
- Gamma globulin, 317
- Generalization, 656, 668,
678, 707
- Genetics, 798
- Geographical differences,
379
- Gigantism, 312
- Gifted child, 115, 261,
416, 558, 562
- Goal-seeking behavior, 439
- Goodenough Draw-a-Man
Test, 342, 450
- Grieg, ocular hypertelor-
ism of, 316
- Grip strength, 458
- Group(s)
assimilation, 777
atmosphere, 802
attitudes toward, 771
climate, 764
compliance, 203
conformity, 762, 768
influence, 137
minority, 228
processes, 775
- Growth (see also Develop-
ment)
of cephalofacial dimen-
sions, 265
& climate, 607

- Growth (continued)
 dentofacial, 638
 diagnosis, 231
 & disease, 610
 fingernail, 292
 of the head, 268
 in height, 274, 285, 602, 782
 hormone, 299, 310
 & nephrosis, 288
 & nutrition, 18, 628
 & obesity, 623
 of palate, 272
 physical, 1, 2, 5, 18, 270, 278, 280, 283, 284, 595, 596, 598, 601, 602, 603, 604, 605, 607, 608, 609, 612, 613, 616
 & activity, 600
 of premature, 626
 retardation, 10, 624
 stimulation, 288
 of thorax, 2
 in weight, 285, 611, 782
 Guidance, vocational, 750, 752, 758
 Guilt, 459
 & aggression, 111
- Handicapped (see specific types)
- Hand-mouth contacting, 453
- Handwriting, 461
- Harelip, 71
- Head
 growth of, 268
 injuries, 645
- Health
 education, 526, 536, 737
 mental, 248, 716, 721
 services, 537
- Hearing (see also Deafness)
 aids, 534
 disorders, 90
 loss, 422, 527, 537
 rehabilitation, 490
 testing, 370, 528, 530
- Height
 & climate, 277
 growth in, 274, 285, 602, 782
 secular changes in, 279
 & vital capacity, 622
- Hemiatrophy, 184
- Hemoglobin (see also Blood)
 fetal, 619
 in infancy, 62
- Hemorrhage, in newborn, 290
- Hereditary galactosemia, 646, 738
- Heredity (see also Genetics, Twins)
 (continued)
 & aciduria, 185
 & alcaptonuria, 191
 & caries resistance, 741
 & dental caries, 186
 & haptoglobin types, 550
 & leukemia, 332
 & life span, 189
 & microdontia, 742
 & pentosuria, 193
 & pseudoglioma, 542
 & spherocystosis, 538, 540
 Hernia, 51
 Hip flexibility, 276
 Hirsutism, 37
 Home adjustment, 763
 Homicidal deaths, 733
 Hormone
 growth, 299, 310
 metabolites, 22
 therapy, 10, 287, 288, 329, 624
 thyroid, 291
 thyrotropic, 309
 Hospitalization, 525
 House-Tree-Person (H-T-P) Test, 88
 Human relations, 767
 Hunt-Minnesota Test for Organic Brain Damage, 463
 Hyaline membrane disease, 635, 732
 Hydramnios, 56
 Hypernatremia, 45
 Hyperthyroidism, 64, 337
 Hypoglycemia, 33
 Hypotonia, 70, 72
 infantile, 320
 Hysteria, 247
 Ideal self, 452
 Identification, 129, 649
 object, 78
 Identity, ego, 508
 Idiopathic hypercalcemia, 57
 Illness
 & fear of death, 500
 mental, 724
 & personality development, 163
 Images, after-, 427
 Imitation, 199, 432
 Immunization (see also specific diseases & agents)
 of infants, 308
 infant's memory of, 529
 multiple, 307, 308, 734
 Imprinting, 385, 481
 Impulse control, 402, 518
 Impulsive behavior, 445
 Incentives, 456
 Individual differences, 85
- Infancy
 auditory localization in, 86
 autism in, 726
 blood volume in, 28
 cerebral lesions in, 315
 duodenal ulcer in, 55
 EEG in, 476
 feeding in, 9, 18, 159, 306, 588, 643
 growth in, 611, 616, 628
 hemoglobin in, 62
 hypernatremia in, 45
 idiopathic hypercalcemia in, 57
 immunization in, 308, 734
 intellectual development in, 725
 kidney function in, 12
 marasmus in, 647
 memory of inoculation, 529
 motor behavior in, 190
 motor development in, 360, 718
 mortality in, 174
 Pérez reflex in, 357
 plasma volume in, 627
 sciatic nerve injury in, 41
 serum protein patterns in, 636
- Infant speech, 455
- Infantile
 autism, 465
 experiences
 & adult behavior, 495, 723
 & critical periods, 385, 481
 & radiation effects, 420
 & reactions to shock, 286
 illness & later development, 163
 hypotonia, 70, 72, 320
- Infection(s) (see also specific types)
 maternal, 313
 staphylococci, 27, 47
 urinary tract, 336
- Influence
 techniques, 139
 yielding to, 694
- Inheritance (see Heredity)
- Injuries, head, 645
- Institutionalization, 360, 714
 & mental subnormality, 237
- Integration, racial, 767
- Intelligence (see also Mental subnormality)
 & achievement, 210
 age changes in, 352
 & anxiety, 399
 & bilingualism, 769

- Intelligence (continued)
 & cerebral palsy, 371
 & creativity, 669, 766
 development of, 725, 753
 & learning, 382, 428, 442
 measurement
 of mentally subnormal, 125, 146, 421, 450
 in non-Western subjects, 93
 test-retest, 706
 & motor performance, 409
 & nutrition, 294
 & personality, 115
 prediction of, 667
 rural-urban differences
 in, 220
 & schizophrenia, 164
 subculture variations in, 770
 & technical education, 761
 tests (see specific tests)
- Interaction
 adult-child, 166
 family, 573
 mother-infant, 590
 parent-child, 684
 social, 576, 579
- Interests
 later childhood, 338
 preadolescent, 75
 reading, 747
- Interpersonal relations, 145, 569
- Interview, 671, 708, 776
 validity, 405
- Interviewing, 573
- Isolation, 546
- It Scale for Children, 374
- Judgment, esthetic, 682, 683
- Justice, concept of, 91
- Kahn Test of Symbol Arrangement, 158
- Kidney function, 12
- Kindergarten adjustment, 746
- Klinefelter's syndrome, 327
- Kraus-Weber Test of Minimum Muscular Fitness, 675
- Kwashiorkor, 631
- Language (see also Speech)
 & cerebral palsy, 127
 development, 109, 676, 703
 & intelligence, 515
 measures, 149
 retardation, 341
- Leadership, 768
- Learning
 association, 424, 656
 causal, 497, 498, 499
 classroom, 668, 697
 cognitive, 681
 discrimination, 114, 130, 142, 382, 386, 398, 401, 410, 430, 444, 449, 457
 & intelligence, 79, 128, 428, 442
 paired-associate, 351, 429
 perceptual, 705
 & physical activity, 690
 probability, 113, 128, 406
 & reinforcement, 340, 380, 406, 414, 426, 443
 theory, 794, 795
 transfer of, 148
 verbal, 674
- Leisure time activity, 143
- Leukemia, 74, 325, 332, 500
- Listening comprehension, 117
- Localization, finger, 232
- Longitudinal analysis, 437
 studies, 1, 8, 18, 26, 74, 76, 77, 85, 124, 159, 271, 274, 278, 280, 282, 292, 339, 352, 392, 601, 604, 608, 609, 611, 612, 613, 616, 623, 651, 667, 670, 671, 676, 702, 777, 792, 797
- Maladjustment (see Adjustment)
- Malnutrition (see Nutrition)
- Malocclusion, 39, 638
 incidence of, 533
- Mammary glands (see Breast)
- Manipulatory motivation, 142
- Maori adolescence, 214
- Marasmus, 631, 647
- Masculinity, 129
- Mass media, television, 92, 483
- Maternal (see also Mother)
 acceptance, 711
 attitudes, 218, 415, 462
 behavior, 355, 435, 502, 568, 702
 care, 159, 169
 concerns, 736
 deprivation, 714, 725
 diabetes, 170, 621
 discontinuity, 482
- Maternal (continued)
 employment, 141, 488
 health, 42
 infection, 313
 interviews, 671
 mortality, 522
 needs, 355
 nutrition, 628
 personality, 462
 riboflavin deficiency, 638
 rubella, 49
- Maturation
 & athletic performance, 273
 rate & height, 274
 skeletal, 271
- Maturity
 fetal, 597
 vocational, 800
- Measles, vaccine, 36, 63, 187
- Measurement, error of, 377, 378
- Medical care, 238
- Memorization, 116
- Menstruation, 300, 472
- Mental deficiency
 & response variability, 704
 & right-left discrimination, 232
- health, 248, 497, 498, 591, 716, 721
- illness, 578, 724
- retardation, natural history of, 582
- subnormality, 256, 393, 787
 & activity level, 356
 & aminoaciduria, 731
 & anxiety, 686
 & articulation, 561
 & associative clustering, 424
 & audiometry, 419
 & brain function, 467
 & concept formation, 100
 diagnosis of, 524
 & electroencephalography, 289
 false diagnosis of, 98
 & family adjustment, 216, 224
 & idiopathic hypercalcemia, 57
 & institutionalization, 216, 237
 & intelligence measurement, 125, 421, 450, 706
 & Klinefelter's syndrome, 327
 & language, 515
 & later adjustment, 225

- Mental (continued)**
 subnormality (continued)
 & learning, 79, 128, 130, 382
 & maternal acceptance, 711
 & motor performance, 95
 & muscular dystrophy, 152
 parental acceptance of, 222, 517
 & perception, 372
 & phenylketonuria, 59, 730
 & physical handicap, 448
 & pseudoglioma, 542
 research in, 423
 & response to reinforcement, 150
 & seasonal variation in birth, 196
 & sex identification, 367
 & social values, 349
 & speech, 369
 & task repetition, 344
 & training, 112, 252, 566
 & trisomatic syndrome, 551
 & twinning, 739
 in twins, 183
 & visual-motor ability, 151
 & WISC patterning, 477
 tests (see specific tests)
- Metabolic defects**, 11, 44, 59
- Metabolism**
 calcium-phosphorus, 11, 44
 fat, 19
 & schizophrenia, 514
 steroid, 11
 thyroid hormone, 291
- Migration**, 546
- Minority groups**, 228
- Models**, role, 199
- Mongolism**, 42, 195, 302, 328, 513, 543, 553
- Moral development**, 91
- Mortality**
 childhood, 174
 from homicide, 733
 from hyaline membrane disease, 732
 infant, 174
 maternal, 522
 neonatal, 167
 newborn, 170
 perinatal, 178
 of twins, 189
- Mother**
 -child interaction, 240
 -child relations, 502, 786
 -child resemblances, 625
 -infant interaction, 590
 interview, 708
 unmarried, 729
 working, 488
- Mothering**, 525
- Motivation (see also Need)**, 133, 400, 801
 achievement, 136, 657
 aggression, 447, 710
 & behavior, 355
 friendship-affiliation, 390
 frustration, 123
 manipulatory, 142
 parent-child, 144
 structure, 84
- Motor**
 ability, 688
 development, 190, 360, 554, 670, 672, 718
 performance, 95
 & intelligence, 409
- Movement**, body, 83
- Murder**, 475
 & frustration-aggression, 723
- Muscular**
 dystrophy, 60, 152
 fatigue, 629
- Musculature**, hypotonic, 70, 72
- Musical ability**, 433
- National**
 differences, 22, 601, 603, 608, 609, 695
 preferences, 696
- Need(s) (see also Motivation)**, 105
 achievement, 87, 136, 657
 aggression, 111, 133, 447, 710
 dependency, 105
 friendship-affiliation, 390
 nurturance, 105
 & values, 349
- Neonate (see Newborn)**
- Nephrosis & growth**, 288
- Neural excitability**, 509
- Neurology**, 232
- Newborn (see also Birth, Prematures)**
 adjustment, 15
 behavior, 391, 392
 bleeding diseases, 48
 blood uric acid levels in, 625
 blood volume, 30
 care, 27, 641
 convulsions, 637, 640
 cord blood in, 632
 deformities, 35
- Newborn (continued)**
 of diabetic mothers, 621
 EEGs, 640
 fibrinolysis, 25
 hand-mouth contact, 453
 hemorrhage in, 290
 hyperbilirubinemia in, 40
 hypoglycemia in, 33
 infection, 47
 mortality, 167, 170, 178
 mothering of, 502
 respiration, 293, 295, 296, 301, 304, 305
 scapula, 267
 serum protein patterns, 20
 skin, 26
 survival, 295
 weight of, 20, 615
- Number concepts**, 261, 709
- Nursery school attendance & later adjustment**, 746
- Nutrition (see also Diet)**
 & growth, 18
 & intelligence, 294
 mal-, 16, 631
 maternal, 628
 & serum protein pattern, 636
- Nurturance**, 105
- Obesity**
 evaluation of, 7
 & growth, 623
- Object identification**, 78
- Observation**, 135
- Obstetrics**, 532
- Occupations (see Vocational)**
- Only child**, 102
- Oral habits**, 39, 67
- Ordinal position**, 226, 580
- Orthodontics (see also Dental)**, 58, 168, 533
- Ossification**, 11, 44, 597
- Painting (see Drawings)**
- Paired-associate learning**, 351, 429
- Palate**, growth of, 272
- Parent (see also Family, Father, Maternal, Mother, Paternal)**
 acceptance of mental subnormality, 517
 attitudes, 591, 774
 -child
 interaction, 684
 perception of, 160, 363, 673
 relations, 107, 136, 147, 202, 222, 229, 254, 405, 436, 504, 584, 665, 702, 766, 772
 research, 104, 126
 resemblances, 144, 274, 649, 650

- Parent (continued)**
 deprivation, 487, 724
 discipline, 571
 education, 799
 influence techniques, 139
 interviews, 405, 776
 perception of children, 687
 permissiveness, 773
- Parental**
 body build & growth
 of offspring, 1
 overprotection, 503
 participation in clinic
 referrals, 122
 roles, 219
- Pathology, pediatric, 260**
Pediatric pathology, 260
Pediatrics, 250, 784
- Peer(s)**
 choices, reciprocal, 576
 concept of, 460
 popularity, 679
- Perception, 120**
 ambiguity in, 663
 child, of parents, 160,
 363, 673
 development of, 259
 distortion of, 160
 form, 368
 & intelligence, 372
 interpersonal, 762
 of parent-child rela-
 tions, 436
 parent, of child, 687
 size, 365, 648, 691
 social, 236
 spatial, 510
- Perceptual**
 development, 131
 learning, 705
 -motor development 396,
- Pérez reflex, 357**
- Performance**
 & anxiety, 700
 motor, & intelligence,
 409
 & reinforcement, 150
- Perinatal mortality, 178**
Permissiveness, 773
- Personality**
 & achievement, 207, 744
 adolescent, 592, 720
 & anxiety, 395
 assessment, 135
 & culture, 254, 720, 791
 & delinquency, 505, 507
 development, 163, 215,
 251, 584, 788, 792
 & dreams, 701
 & esthetic judgment, 682
 & handwriting, 461
 & intelligence, 115
 & leisure time activity,
 143
 maternal, 462
- Personality (continued)**
 & motor ability, 688
 & ordinal position, 226
 & scholarship, 376
 sex differences in, 81
 & sibling relations, 226
 & social status, 81
 Phenylketonuria, 59, 730
- Physical**
 activity
 & growth, 600
 & psychological devel-
 opment, 727
 & rehabilitation, 712
 & skill learning, 690
 & social develop-
 ment, 713
 disability, 715
 education, 438, 523
 fitness, 353, 659, 675,
 719
 growth, 1, 2, 5, 18, 265,
 268, 270, 272, 274,
 278, 280, 283, 284,
 292, 299, 310, 595,
 596, 598, 601, 602,
 603, 604, 605, 607,
 608, 609, 611, 612,
 613, 616, 623, 626,
 638, 782
 handicap, 448, 511, 557
- Physiological develop-
 ment, 21**
- Physiology, 243**
- Piaget, 803**
- Placentology, 263**
- Plasma volume, 627**
- Plasticity, 545**
- Play, sex differences in, 431**
- Poisoning, accidental, 735**
- Poliomyelitis, immuniza-
 tion for, 173, 176,
 177, 307, 308, 323,
 535**
- Popularity, 679, 777**
- Power assertion, 202**
- Preadolescent interests, 75**
- Prediction**
 of achievement, 209
 delinquency, 728
 of later articulation, 441
- Preference(s)**
 color-form, 89
 conceptual, 389
 for difficult goals, 439
 national, 696
- Pregnancy (see also Repro-
 duction), 42, 49, 56,
 61, 64, 66, 71, 178,
 292, 313, 333, 621,
 628**
- Premature**
 blood volume of, 29
 electrocardiograms of,
 297
 EEGs of, 476
- Premature (continued)**
 follow-up studies of, 14,
 278
 gastric acidity in, 8
 growth of, 626
 hyaline membrane dis-
 ease in, 635, 732
 incidence of, 175, 178
 monocytogram in, 639
 motor behavior of, 190
 pulmonary failure in, 618
 sciatic palsy in, 311
- Prenatal development,
 272, 638**
- Probability learning, 113,
 128, 406**
- Problem(s)**
 adolescent, 228
 behavior, 504, 512, 591
 discipline, 555
 -solving, 94, 208, 654,
 685, 707
- Projective tests (see also
 specific tests), 145,
 486, 493, 793**
- Protein**
 malnutrition, 631
 serum, 636
- Pseudoglioma, 542**
- Psychoanalytic theory,
 521, 783, 801, 803**
- Psychology**
 adolescent, 235
 annual review of, 586
 child, 245
 clinical, child, 255
 developmental, 242, 586
 educational, 206
 ego, 783
 theory in, 790
- Psychopharmacology, 153,
 157, 480**
- Psychosis, 493**
- Psychosomatics, 240**
- Psychotherapy (see
 Therapy)**
- Puberty, 37, 38**
- Pulmonary**
 circulation, 618
 function, 21
 diffusing capacity, 633
- Punishment, 340**
- Quantity conceptions, 664**
- Racial (see also Ethnic)**
 awareness, 140
 differences, 24, 190, 265,
 494
 integration, 140, 767
- Radiation effects, 58, 325,
 420**
- Raven Progressive
 Matrices, 125, 408**
- Reaction time, 425, 454, 480**
- Readiness, reading, 757**

- Reading
 acceleration in, 562
 achievement, 197
 comprehension, 117
 disorders, 680
 interests, 747
 readiness, 757
 retardation, 396, 564
 Recall of information, 117
 Recognition, word, 362
 Reflex, Pérez, 357
 Rehabilitation, 712
 hearing, 490
 Reinforcement
 of aggression, 404
 & attitude formation, 771
 & autism, 717
 delay in, 449
 effects, 340, 380, 414, 443
 & learning, 406, 426
 & performance, 150
 secondary, 398
 Relations
 family, 485, 763
 father-son, 129
 individual-environment, 593
 interpersonal, 145, 569
 mother-child, 482, 488, 502, 786
 parent-child, 107, 136, 147, 202, 222, 229, 240, 254, 405, 436, 504, 584, 665, 702, 766, 772
 sibling, 226
 teacher-pupil, 202, 203, 759, 764
 Reliability, 377, 378
 of anamnestic interview, 671
 Renal function, 12
 Reproduction, 292
 form, 151
 Research
 educational, 230
 methods, 423, 573
 parent-child, 104, 126
 in speech, 118
 speech & hearing, 90
 Resemblances
 family, 192, 193, 738
 father-son, 659
 mother-child, 625
 parent-child, 144, 274, 649, 650
 Respiration, 620, 622, 633
 newborn, 293, 295, 296, 301, 304, 305
 Respiratory function, 21
 Response
 to environment, 85
 variability, 103
 Retardation
 growth, 624
 Retardation (continued)
 language, 341
 reading, 396, 564
 Retroactive inhibition, 428
 Rib shadows on X-ray, 6
 Rickets, 44, 643
 Rigidity
 behavior, 654
 flexibility, 650
 Roentgenography, 6, 58
 Role(s)
 differentiation, 387
 hero, 199
 parental, 219, 673
 sex, 374, 484
 taking, 366
 Rorschach, 76, 77, 339, 720, 792
 Rubella, 49, 333
 Runaway children, 165
 Rural-urban differences, 220, 575
 Sarason Test Anxiety Scale for Children (TASC), 698
 Sarcoma, osteogenic, 319, 330
 Scaling, 456, 785
 Scapula, 267
 Schizophrenia, 156, 480, 508
 & birth order, 580
 & intelligence, 164
 & metabolism, 514
 & perception of parents, 160
 pre-, 466
 treatment of, 593
 Scholarship & personality, 376
 School
 achievement, 197, 198, 204, 209, 210, 212, 213, 572, 744, 745, 753, 756
 adjustment, 763
 counseling, 760
 discipline, 205
 drop-outs, 200, 751
 failure, 519
 friendliness in, 556
 health services, 537, 749
 learning, 668, 697
 out-of-, activities, 583
 retention, 754
 streaming, 748
 Sciatic palsy, 311
 Scotopic visibility, 509
 Seasonal variation in birth of mentally sub-normal, 196
 Secondary reinforcement, 398
 Secular changes, 279, 394, 595, 598, 605, 615
 Security & achievement, 99
 Selection, natural, 539, 545, 548, 549
 Self
 -concept, 82, 460, 594
 desire for change in, 137
 -esteem, 211, 657
 ideal, 452
 -understanding, 497
 Semantic differential, 715
 Sense organs (see specific organs)
 Senses (see specific senses)
 Serum
 cholesterol, 24
 proteins, 636
 Sex
 anomalies, 544
 determination, 541
 development, 553
 differences, 24, 81, 102, 147, 212, 338, 352, 359, 374, 375, 387, 389, 397, 402, 427, 431, 445, 543, 576, 597, 622, 629, 645, 652, 658, 673, 679, 694, 769
 of experimenter, 652
 genetic, 156, 188, 327
 identification, 367, 649
 role, 484
 differentiation, 387
 preferences, 374
 -typing, 652
 Sexual
 development, 484
 precocity, 298, 337
 Sharing behavior, 102
 Sibling relations, 226
 Sickle cell anemia, 65
 Size perception, 365, 648, 691
 Skeletal
 development, 282, 606
 maturation, 271
 maturity, 273
 Skin, of newborns, 26
 Slow learner, 246
 Smoking, 526
 & constitution, 599
 Social
 acceptance, 577, 777
 attitudes, 655, 692
 behavior, 223, 474, 556
 class differences, 159, 219, 494, 577
 climate, 802
 conformity, 694, 765
 development, 713, 775
 dominance, 495
 effectiveness, 569
 histories, 464
 interaction, 140, 166, 576, 579
 isolation, 451, 722
 maturity, 375

- Social (continued)
 perception, 236
 status, 81
 Socialization, 129, 136,
 214, 254, 481, 584,
 679, 773, 791
 Socioeconomic differences,
 20, 39, 190, 387, 568,
 581, 604
 Sociology & child develop-
 ment, 779
 Sociometry, 381, 576, 701,
 777
 Sociopaths, 478
 Somatotypes, 266
 Spatial perception, 510
 Special
 abilities (see specific
 types)
 education, 201
 Speech
 of cerebral palsied, 110,
 383, 384, 434
 & cleft palate, 106, 417
 defects, 161, 346, 347,
 348, 388, 415, 503
 development, 249
 disorders, 90
 infant, 455
 & mental subnormality,
 369
 research in, 118
 tests, 417
 therapy, 462, 479, 516,
 567
 training, 441, 483
 Spelling, 198
 finger-, 418
 Spherocytosis, 538, 540
 Staphylococcal infection,
 27, 47
 Statistics, 253, 437
 Stature (see Height)
 Stereotypes, 692
 Steroid metabolism, 11
 Streaming, 748
 Strength, 353
 of grip, 458
 Stress, 677
 & level of aspiration, 699
 Student
 discipline, 205
 withdrawal from school,
 200
 Stuttering, 346, 347, 348
 Subcutaneous fat, 5, 7, 270
 Subnormality (see Mental)
 Success, 657, 658
 antecedents of, 464
 effects of, 344
 Sucking
 finger-, 34
 thumb-, 34
 Suggestibility, 451, 694,
 768
 Superego (see Conscience)
 Surgery, bone, 587
 Swallowing, 67
 Sweat sodium & chloride
 levels, 634
 Syphilis, 644
 Talipes, 43
 Task repetition, 344
 Teacher
 attitudes, 591
 -pupil relations, 202,
 203, 759, 764
 Teeth (see Dental)
 Television, 92, 483
 Test(s) (see also specific
 test)
 anxiety, 359, 700
 Anxiety Scale for Chil-
 dren (TASC), 359
 aptitude, 660
 Theory
 drive, 400
 learning, 794, 795
 Piaget, 803
 psychoanalytic, 521,
 801, 803
 psychological, 790
 Therapy
 chemo-, 153, 157
 child, 154
 electro-, 512
 hormone, 10, 287, 288,
 299, 309, 310, 329,
 337, 624
 psycho-, 593
 psychoeducational, 233
 speech, 462, 479, 516,
 567
 Thinking, 94, 97, 685, 707
 Thorax, 2, 3, 610
 Thumb-sucking, 34
 Thyroid hormone, 291, 337
 Thyrototoxicosis (see Hyper-
 thyroidism)
 Thyrotropic hormone,
 309
 Time, reaction, 425, 454
 Tongue malfunction, 67
 Tooth eruption, 4, 279,
 533
 Transfer of training,
 148, 656
 Transposition, 430, 457
 Trisomic syndrome, 551
 Twins, 17, 183, 189, 194,
 195, 334, 508, 547,
 597, 739, 743
 Typology (see Body typing)
 Ulcer, duodenal, 55
 Urban-rural differences,
 575
 Urinary
 creatinine, 23
 creatinine, 23
 17-ketosteroids, 22
 tract infection, 336
 Vaccination (see Immuni-
 zation)
 Validity of parent inter-
 views, 405
 Values, 254
 adolescent, 375, 572
 & needs, 349
 Variation, diurnal, 458
 Ventilatory capacity, 622
 Verbal
 behavior, 343
 conditioning, 404
 learning, 674
 mediation, 100
 Virilism, 37
 Visibility, scotopic, 59
 Visual-motor ability, 151
 Vital capacity, 304
 Vitamin deficiency, 638
 Vocational
 attitudes, 581
 choice, 364, 669
 guidance, 750, 752, 758
 maturity, 800
 Walking, 695
 Wechsler Intelligence Scale
 for Children (WISC),
 96, 101, 421, 477, 680
 Weight
 birth, 20, 607
 brain, 554
 & climate, 277
 growth in, 285, 602, 611,
 782
 newborn, 615
 secular changes, 279, 615
 & surface area, 539
 Welfare, child, 171, 182
 Werner's syndrome, 68
 Wilm's tumor, 321
 Withdrawal from school,
 200
 Wolf children, 465, 501
 Word
 association, 351
 recognition, 362
 Working mothers, 488
 Writing
 hand-, 461
 use of verb tenses in, 466
 Xyloketosuria, 193
 Youth (see Adolescent)

8

le
'80

1,

615

66



Printed by
THE ANTIOCH PRESS
Yellow Springs, Ohio



CURRENT MONOGRAPHS

of the Society for Research in Child Development, Inc.

Helen L. Koch

THE RELATION OF CERTAIN FORMAL ATTRIBUTES
OF SIBLINGS TO ATTITUDES HELD TOWARD EACH
OTHER AND TOWARD THEIR PARENTS

1960 \$3.50

Nancy E. Wood

LANGUAGE DEVELOPMENT AND LANGUAGE DIS-
ORDERS: A COMPENDIUM OF LECTURES

1960 \$2.75

Irwin M. Marcus, *et al.*

AN INTERDISCIPLINARY APPROACH TO ACCIDENT
PATTERNS IN CHILDREN

1960 \$2.50

Bernard Farber

FAMILY ORGANIZATION AND CRISIS: MAINTENANCE
OF INTEGRATION IN FAMILIES WITH A SEVERELY
MENTALLY RETARDED CHILD

1960 \$2.75

IOWA CHILD WELFARE RESEARCH STATION. STATE
UNIVERSITY OF IOWA. THE FORTIETH ANNI-
VERSARY: 1917 - 1957

1959 \$2.50

Ali A. Kawi and Benjamin Pasamanick

PRENATAL AND PARANATAL FACTORS IN THE DE-
VELOPMENT OF CHILDHOOD READING DISORDERS

1959 \$3.00

Ruth Hoeflin and Leone Kell

THE KELL-HOEFLIN INCOMPLETE SENTENCE
BLANK: YOUTH PARENT RELATIONS

1959 \$2.25

Lucille Aust Hunt

A DEVELOPMENTAL STUDY OF FACTORS RELATED
TO CHILDREN'S CLOTHING PREFERENCES

1959 \$1.75

(A mimeographed list of all monographs available in the series since 1935
will be sent upon request.)

order from

CHILD DEVELOPMENT PUBLICATIONS

Purdue University, Lafayette, Indiana

22274

MC.

5.50

2.75

2.50

2.75

2.50

3.00

2.25

1.75

935